NIT No. IITGOA/IWD/2026-27/05

NOTICE INVITING TENDER
(NIT)

Name of the work: *Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa*

This NIT contains Pages 1 to 172 excluding cover pages

Sd/-
Dean (Infra & Support)
IIT Goa
Email: dean.is@iitgoa.ac.in

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INDIAN INSTITUTE OF TECHNOLOGY GOA

NOTICE INVITING TENDER

NIT Reference No. IITGOA/IWD/2026-27/05

Indian Institute of Technology Goa invites on behalf of its Board of Governors online bids **(e-tender) Percentage Rate** tenders from approved and eligible contractors of CPWD and those of appropriate list of M.E.S., BSNL, Railway and State P.W.D/ Central Public Sector Undertakings / State Public Sector Undertakings/ Central Autonomous bodies/ State Autonomous bodies/ City Development Authority/ Municipal Cooperation of a City formed under any act by Central or State Government for the below mentioned work:

The enlistment of the contractors should be valid on the last date of submission of the Bid.
Copy of valid contractor's registration certificate (ROF in case of specialized agency), PAN card, GST Registration certificate & GSTIN should accompany the Technical Bid.

1.1	NIT No.:	**IITGOA/IWD/2026-27/05**
1.2	Name of Work:	**Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa**
1.3	**Estimated Cost Put to Tender (ECPT):** (*given merely as a rough guide)*	Electrical = Rs. 1,69,10,362/- (incl GST) Civil = Rs. 18,26,236/- (incl GST) Composite = Rs. 1,87,36,598/-(incl GST)
1.4	Earnest Money Deposit (EMD):	Rs. 3,74,732/-
1.5	Period of Completion:	180 Days
1.6	Date of Online Publication of Tender	22/05/2026 at 17.00 hrs
1.7	Date of Downloading of Tender	22/05/2026 at 17.00 hrs
1.8	Last Date for Submission of Bids	29/05/2026 at 17.00 hrs
1.9	Date of Pre bid Meeting	NA
1.10	Date and time of Opening of Technical Bids	30/05/2026 at 17.00 hrs
1.11	Date and time of Opening of Financial Bids	To be announced on CPPP
1.12	Cost of Bid Document:	**NIL**

PART - I : INSTRUCTIONS TO THE BIDDERS FOR ONLINE BID SUBMISSION

1.0 The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app**.**

1.1 REGISTRATION

1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link "**Online bidder Enrollment**" on the CPP Portal which is free of charge.

2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g., Sify / nCode / eMudhra etc.), with their profile.

5) Only one valid DSC should be registered by a bidder. It shall be noted that the bidders are responsible for ensuring that they do not lend their DSC's to others, which may lead to misuse.

6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

1.2 SEARCHING FOR TENDER DOCUMENTS

1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.

2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the CPP Portal to intimate the bidders through SMS / e- mail in case there is any corrigendum issued to the tender document.

3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

1.3 PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.

   Bidder shall go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Bidder may note the number of covers in which the bid documents are required to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

2) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

3) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g., PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

Note: *My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.*

1.4 SUBMISSION OF BIDS

1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as "online" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD / Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS.

4) Bidder should prepare the EMD as per the instructions specified in the tender document. In the case the bidder desires to submit Bank Guarantee from any

Scheduled bank or Demand Draft or any other accepted instrument instead of online remittance of the EMD, the original should be posted/couriered/given in person to the concerned official, **latest by the last date and time of bid submission** or as specified in the tender documents. The details of such an instrument, physically sent, should match those available in the scanned copy and the data entered at the time of bid submission. Otherwise, the uploaded bid will be rejected.

5) ***Tenders without a valid EMD will be summarily rejected. No exemption of EMDs or process fee for MSME/NSIC registered contractors.***

6) Details for online payment of EMD:

Beneficiary name: IIT Goa Main Account
Account No: 520101252594859
IFSC Code: UBIN0913286
Bank Name: Union Bank of India
Branch: Farmagudi
Address: GEC Campus, Farmagudi, Ponda, Goa - 403401.

7) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

8) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

9) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

10) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

11) Upon the successful and timely submission of bids (i.e., after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission

message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

12) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

13) Bidders are requested to add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

1.5 ASSISTANCE TO BIDDERS

1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority (dean.is@iitgoa.ac.in & ex.eng.ee@iitgoa.ac.in) for a tender or the relevant contact person indicated in the tender.

2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

PART – II : ELIGIBILITY & QUALIFICATION REQUIREMENTS

2.0 Technical Eligibility – Similar Work Experience

1. The bidder should have successfully completed or substantially completed similar works during last seven years ending last day of month previous to the month of this NIT should be either of the following: -

2. Criteria of eligibility for submission of tender documents, apart from basic eligibility:

Three similar works each of value not less than 40% of estimated cost with capacity of individual transformer being 800 kVA

(OR)

Two similar works each of value not less than 60% of estimated cost with capacity of individual transformer being 800 kVA

(OR)

One similar works each of value not less than 80% of estimated cost with capacity of individual transformer being 800 kVA

3. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of tender.

4. "Work" means only work executed under State or Central Government Departments/ Central Public Sector Undertakings / State Public Sector Undertakings/ Central Autonomous bodies/ State Autonomous bodies/ City Development Authority/ Municipal Cooperation of a City formed under any act by Central or State Government /Listed Companies in India.

5. Completion certificates issued by an officer not below the rank of Executive Engineer shall only be considered for evaluation.

6. The intending bidder shall submit the Similar work experience certificates, furnishing all details in the format provided at **Form-C and Appendix-4**.

7 Definition of "Similar Work:"

Supply, Installation, Testing & Commissioning of 33 kV Substation Equipments

2.1 Financial Capacity

1. Average Annual Turnover: (INR): **56.20 lakh**

The bidder should have achieved a minimum average annual financial turnover (gross) of the amount stated above (*at least **30%** of the estimated tendered cost*), from construction works during the last three consecutive financial years ending on 31st March of the previous financial year. If the bid due date falls within three months of the closing of the latest financial year, that year can be ignored for calculation purposes.

2. Net worth: (INR): **28.10 lakh**

The bidder should possess a minimum net worth of the amount stated above *(at least **15%** of the estimated tendered cost)* at the close of the preceding financial year. If the bid due date falls within three months of the closing of the latest financial year, that year can be ignored for calculation purposes.

Notes:

(1) For Turnover and Net worth, certificates issued by certified Chartered Accountant with UDIN shall be submitted.

(2) When submitting the bid, bidders must upload a UDIN-certified financial capacity certificate in Form B from a chartered accountant. There is no need to upload entire voluminous balance sheets. Further details, if required, may be requested from the bidders after the technical bid is opened. Non-submission may lead to rejection.

2.2 Statutory Requirements

The bidder shall possess valid GST registration and shall comply with EPF, ESI, BOCW, Contract Labour Act and all statutory provisions. Undertakings shall be submitted as per annexures.

The bidder should have appropriate class (33kV or above) valid electrical contractor license issued by State Licensing Authority of Goa.

If the bidder does not have valid electrical contractor license issued by State Licensing Authority of Goa then bidder should submit an undertaking for engaging a valid electrical license holder of eligible class for execution of said work. (Form-E). **However, bidder should upload valid electrical license of eligible class of any other state.**

PART – III : GENERAL INFORMATION AND INSTRUCTIONS TO BIDDERS

3.0 The description of the work is as follows:

The work pertains to **"Establishment of 33/0.433 kV 1MVA dedicated substation for IIT Goa"**

The scope of work shall include both Electrical & Mechanical (E&M) and Civil Works as per the Schedule of Quantities, and shall include, but not be limited to, the following:

- Preparation of all required drawings for the substation, including layouts, SLDs,GA drawing, equipment foundation details, earthing layouts etc and civil drawings for the substation room.
- Design, supply, installation, testing, and commissioning of HT/LT switchgear, power transformer, RTCC, AVR, APFC panel, PCC/LT distribution panels, along with all associated civil and electrical works.
- Supply and laying of HT/LT power cables, including excavation, cable trays/supports, termination, jointing, testing, and commissioning.
- Design, supply, installation, testing, and commissioning of a SCADA system for monitoring, control, and operation of the substation.
- Design, fabrication, installation, and commissioning of a prefabricated substation room, complete with all required accessories, fittings, and supporting infrastructure.
- Execution of internal electrical works for the substation room, including lighting, power sockets, earthing, ventilation, and installation of all required safety equipment and accessories.

The contractor shall be fully responsible for the complete design, engineering, procurement, supply, transportation, storage, erection, testing, commissioning, statutory approvals, safety compliance, quality assurance, and successful handing over of the entire system in all respects, ensuring satisfactory performance as per the tender specifications and directions of the Engineer-in-Charge.

The contractor shall also be fully responsible for trouble free operation during the Defect Liability period.

3.1 Availability of Tender Documents:

1. Tender documents consisting of plans, specifications, the schedule of quantities of the various classes of work to be done, and the set of terms & conditions of the contract to be complied with by the contractor whose tender may be accepted, and other necessary documents can be seen for information at the website, www.iitgoa.ac.in. Copies of other drawings and documents pertaining to the works will be open for inspection by the tenderers at the office of the above-mentioned officer.

2. Bidders are advised to visit the above-mentioned website from time to time (till the bid submission deadline) for any updates to the tender documents, if any. Failure to do so shall not absolve the bidder of his liabilities to submit the bids complete in all respects, including updates thereof, if any. An incomplete bid may be liable for rejection.

3.2 Performance Guarantee

The successful bidder shall submit performance guarantee of 5% (Five Percent) of the Accepted Contract Amount within the period specified in Schedule F. This guarantee shall be in the form of 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 or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F'. including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

3.4 Important Instructions

1. Conditional tenders shall be rejected. Canvassing is prohibited. The competent authority reserves the right to accept or reject any or all tenders without assigning any reason.

2. The competent authority on behalf of the Board of Governors reserves to itself the right of accepting the whole or any part of the tender, and the tenderer shall be bound to perform the same at the rate quoted.

3. The bidder shall sign the 'Tender' at the end of this Section and submit the Letter of Transmittal as given at ***Appendix-1.***

4. To become eligible, the tenderer shall have to furnish an undertaking regarding non-blacklisting as per ***Form 'D'*** of the NIT on a non-judicial stamp paper of minimum value of Rs 100/-.

4. Agreement shall be drawn with the successful tenderer on prescribed Form which is available at ***Part-VII*** of the NIT.

5. The time allowed for carrying out the work will be as stated at para 1 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 tender documents.

3.5 Site Conditions and Pre-Bid Obligations

1. The site for the work is available.

2. Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders 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 tender. A tenderer 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 tenderer 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

tender by a tenderer 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 the General Conditions of the Contract, and local conditions and other factors having a bearing on the execution of the work.

3. Submission of tender shall be deemed to imply full knowledge of site conditions. No claim whatsoever on account of lack of knowledge of site shall be entertained.

4. The contractor shall arrange at his own cost land for labour accommodation, site office, storage of materials, temporary roads, water and electricity connections, tools and plants and all facilities required unless otherwise provided.

5. The bidder shall not be permitted to tender for works if 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). Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Institute.

6. No Engineer of gazette 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 previous 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 tender or engagement in the contractor's service.

7. **Validity of Bids:** The validity period for acceptance of tenders in case only financial bids are invited shall be 30 days from the last date of receipt of bids and in all other cases 75 days from the last day of receipt of technical bid.

(i) If any tenderer withdraws his tender within 7 days after last date and time (24 hours basis) for submission of bids, then the Institute shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

(ii) If any tenderer withdraws his tender after expiry of 7 days after the last date and time (24 hours basis) of submission of the bid, then the Institute, without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

(iii) Withdrawal of the tender, by the tenderer, shall only be made through the e-tender portal.

(iv) Any other method, i.e., through letter/e-mail etc., shall not be considered.

(v) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, bidders shall not be allowed to participate in the rebidding process of the same work and IIT Goa shall be at liberty to debar the bidder from tendering for works for a period of 12 (twelve) calendar months.

3.6 Labour Laws, Safety and Statutory Compliance

1. The contractor shall comply with all labour laws, EPF, ESI, BOCW Act, Contract Labour Act and local regulations.

2 The contractor shall be solely responsible for safety of workers and public and shall provide barricades, caution boards, night lighting, PPE and all safety arrangements.

3 Any accident or damage shall be the contractor's responsibility and shall be made good at his own cost.

3.7 Rates, Taxes and Payments

1. All taxes, Labour Cess etc., as applicable shall be borne by the contractor himself. The contractor shall quote his rates considering all such taxes including GST on works.

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

3. 2% as TDS amount of GST amount payable on the bills will be deducted as per the Govt. of India, Ministry of Finance, Department of Revenue notification vide No.65/39/2018-DOR, dtd: 14-09-2018.

4. GST registration certificate of the state in which the work is to be taken up, if already obtained by the bidder.

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

6. Rates quoted shall be all-inclusive covering labour, materials, tools, plants, scaffolding, curing, dewatering, royalties, taxes, leads, lifts and all incidental works.

7. No claim shall be entertained for idle labour, extra shifts, temporary works or damages due to rain, flood or natural calamities.

3.8 Public Procurement (Preference to Make in India), Order 2017:

IIT Goa shall compare all substantially responsive bids to determine the lowest valuated bid. This Institute is following and abiding with the ***Public Procurement (Preference to Make in India), Order 2017, DIPP, MoCI Order No. P-45021/2/2017-B.E. II dated 15th June 2017*** and its subsequent amendments. Accordingly, preference will be given to the Make in India products while evaluating the bids, however, it is the sole responsibility of the bidder(s) to specify the product quoted by them is of Make in India product along with respective documentary evidence as stipulated in the aforesaid order in the technical bid itself**.**

As per the above order and its subsequent amendments "Local Content" means the amount of value added in India which shall be value of the item procured (excluding net domestic indirect taxes) minus the value of the imported content in the item

(including all the custom duties) as a proportion of the total value, in percent. Accordingly, the suppliers will be classified in following categories.

Class I local Supplier – has local content minimum 50%
Class II local Supplier – has local content minimum 20%

Verification of Local Content: The Class I Local Supplier /Class II Local Supplier at the time of bidding shall be required to indicate the percentage of local content and provide **self- certification as per Form-G** that the items offered meet the local content requirement. The details of the location(s) at which the local value addition is made also needs to be specified.

In case of procurement in excess of Rs.10 crores, the suppliers shall be required to provide the certificate from the Statutory auditor or cost auditor of the company giving the percentage of local content.

The bidders can be debarred for a period up to two years as per Rule 151(iii) of GFR 2017, in case of false declaration.

3.9 Signing of Agreement

This notice inviting Tender shall form a part of the contract document. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:

1. The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
2. Standard Contract form (General Conditions of Contract) as mentioned in the ***Schedules-A -F.*** The bidder is deemed to have gone through and understood the Standard Contract Form and the General Conditions of Contract.

3.10 Jurisdiction

Courts at Goa shall have exclusive jurisdiction.

Dean (Infra & Support)
IIT Goa

(Signature of bidder)

TENDER

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

I/We hereby tender for the execution of the work specified for the The Board of Governors, IIT Goa, GEC Campus, Farmagudi, Ponda, Goa 403401 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.

I/We agree to keep the tender open for the period specified in the NIT from last date of submission of bid.

I/We hereby confirm having submitted the required Earnest Money Deposit as per tender notice. If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said The Board of Governors, IIT Goa, GEC Campus, Farmagudi, Ponda, Goa 403401 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 The Board of Governors, IIT Goa, GEC Campus, Farmagudi, Ponda, Goa 403401 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 12.5 of the tender form. Further, I/We agree that in case of forfeiture of Earnest Money & 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 IIT Goa in future forever. Also, if such a violation comes to the notice of IIT Goa before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

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

Dated:

Bidder Must Sign this Form and Put his Seal

Signature of Contractor
Postal Address
Address:

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

PART – IV : SCOPE OF WORK

This specification covers the complete scope of **design, engineering, procurement, manufacture, inspection, testing, supply, installation, and commissioning** of a 33/0.433 kV, 1 MVA dedicated substation for IIT Goa, in compliance with the latest IS/IEC standards. The scope includes all activities from factory testing at the manufacturer's or sub-vendor's works, packing, transportation (including transit insurance), delivery at site, erection, testing, commissioning, and final handover.

All items of the work shall follow specifications as mentioned in the schedule of quantities and CPWD General Specifications for Electrical Works Part-I Internal & Part-II External 2023, Part-IV Substation 2013, Civils Works Vol I & II 2019, IE rules, Indian Standards Code, as per Rules of NBC & all the amendment issued upto date and as per directions of Engineer-in-Charge

The work broadly includes, but is not limited to, the following:

1. Design & Engineering

- Preparation of all necessary drawings such as layout drawings, cable routes, Single Line Diagrams (SLD), prefabricated room structural drawings, GA drawings, panel/equipment drawings etc. as required by the Engineer-in-Charge.
- Detailed engineering, load calculations etc in accordance with applicable standards and site requirements.
- Submission of all as-built drawings after completion of work.

2. Supply, Installation, Testing & Commissioning (SITC) HT System:

- 33 kV 4 Way Ring Main Unit (RMU)
- Metering Cubicle (Net & Check Meter)
- Indoor VCB Panel with protection system
- Associated HT Structure, HT cabling, jointing, interconnections, and terminations

3. Supply, Installation, Testing & Commissioning (SITC) 1 MVA, 33/0.433 kV transformer, RTCC including all associated civil and electrical works

4. Supply, Installation, Testing & Commissioning (SITC) LT System:

- 1000 kVA Auto Voltage Regulator (AVR) Panel
- 280 kVAr APFC Panel
- PCC/Distribution Panel
- LT cabling, jointing, interconnections, and terminations

5. Supply, Installation, Testing & Commissioning (SITC) SCADA System as per the requirement along with all required IT infrastructure

6. Earthing & Cabling

- Complete earthing system including earth conductors and earth pits

- Supply and laying of HT and LT underground power cables
- Cable glands, lugs, tag plates, termination, interconnections and all installation accessories

7. Civil Works

- Design, fabrication, installation, and commissioning of a prefabricated substation room, complete with all required accessories, fittings, and supporting infrastructure
- Excavation and construction of foundations for all equipment (transformer, RMU, panels, metering cubicle, etc.) as per OEM specifications
- Cable trenches and associated structures
- Transformer yard development including chain-link fencing
- Construction of prefabricated substation room (10 m × 10 m)

8. Auxiliary Systems & Miscellaneous

- All auxiliaries, safety equipment, associated with the substations
- Internal electrification and illumination of the substation room
- Any additional items as specified in the BOQ

9. Statutory Approvals & Coordination

- Liasoning and coordination with GED, Electrical Inspectorate, GEC, and other statutory authorities & agencies engaged in the execution of the work, without any additional cost to the Institute.
- Statutory Govt fees, if any, shall be reimbursed by the Institute

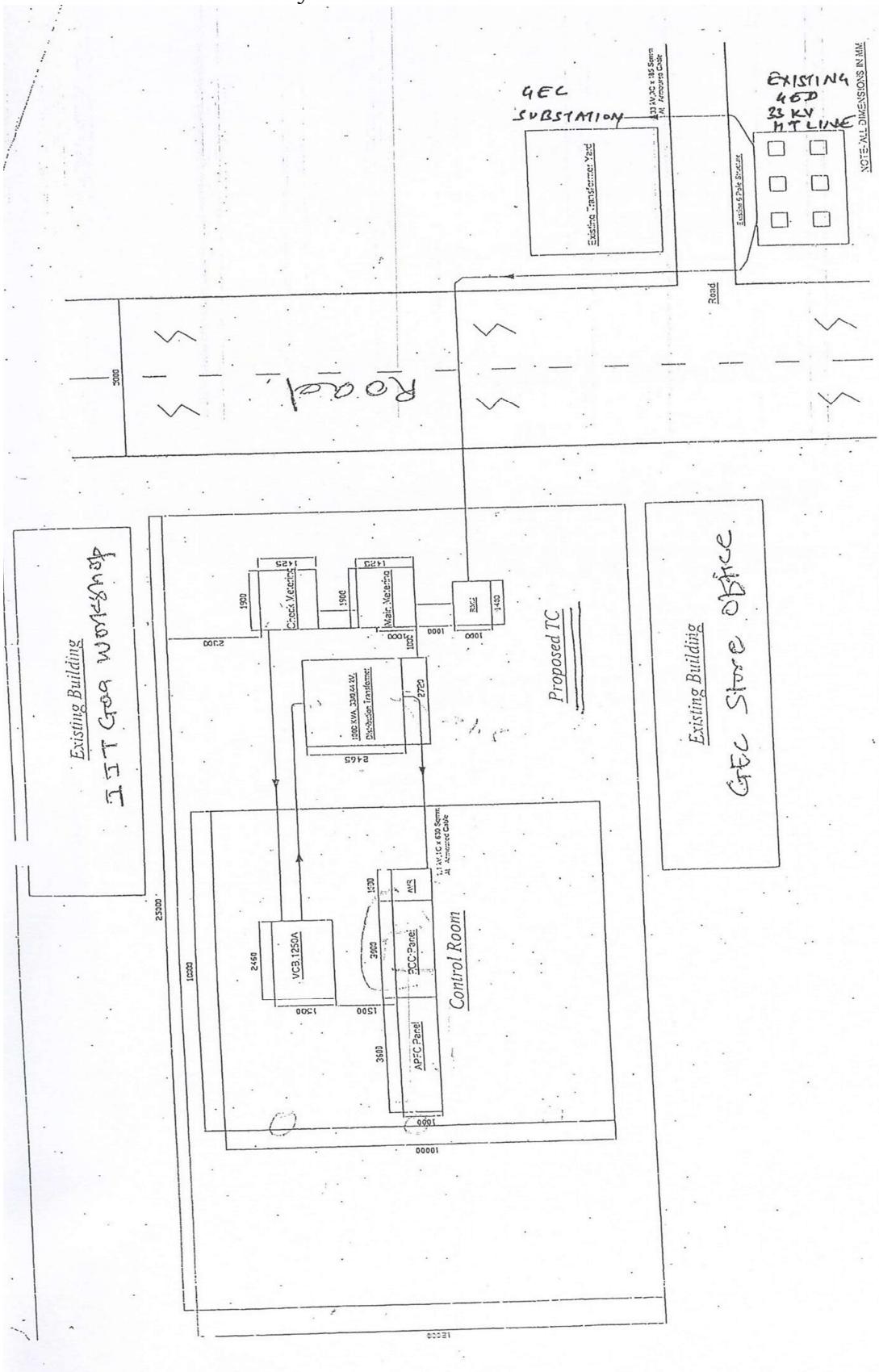
10. Training & Handover

- Training of operating and maintenance personnel
- Final testing, commissioning, and handing over of the complete system

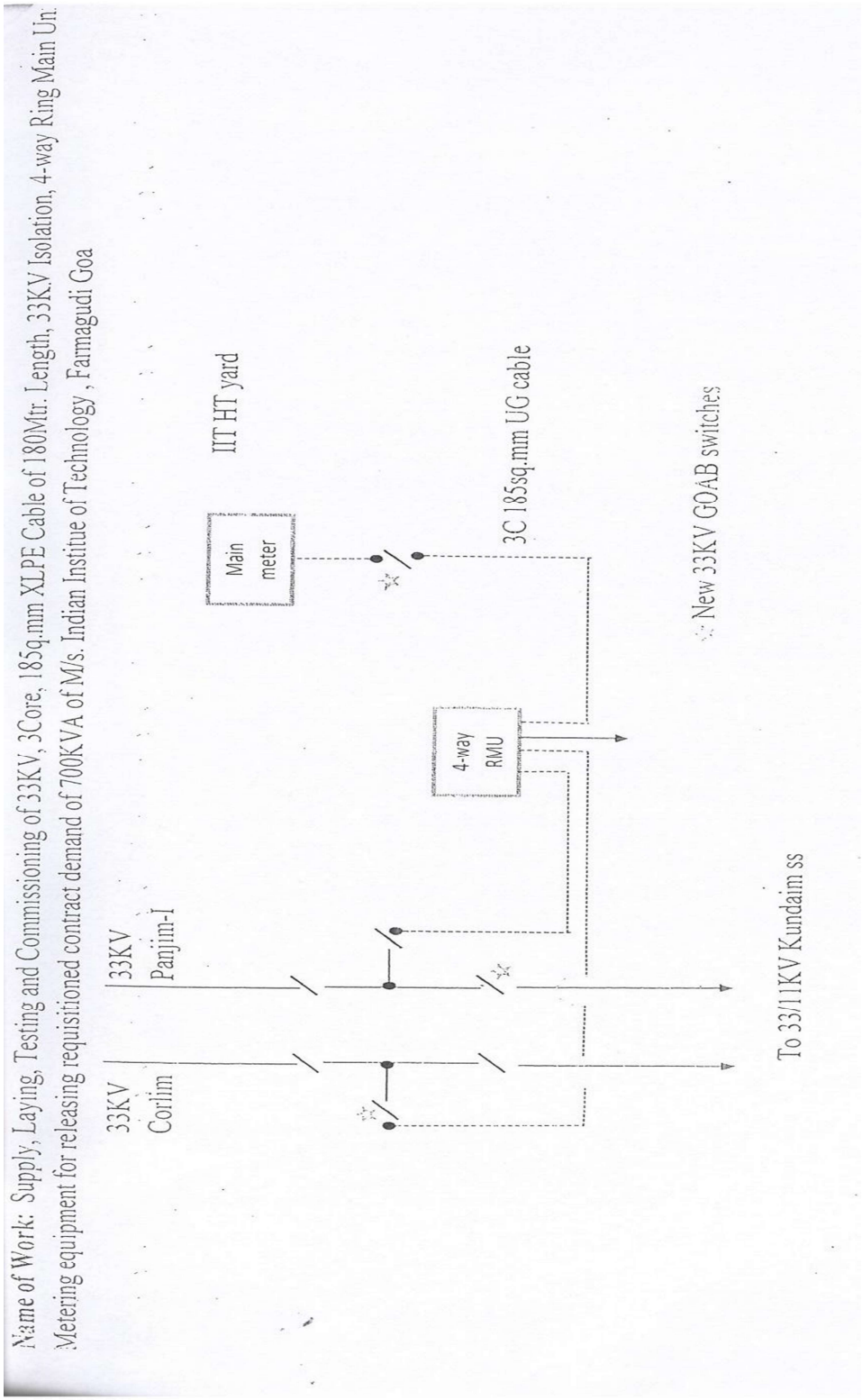
11. After-Sales Service

The entire installation covered under this contract shall be warranted under defect liability period (DLP) shall include a comprehensive warranty guaranteeing reliable and trouble-free operation. Any defects, faults, or deficiencies arising during this period shall be promptly rectified/replaced by the contractor free of cost.

12. Tentative Schematic Layout for Substation:



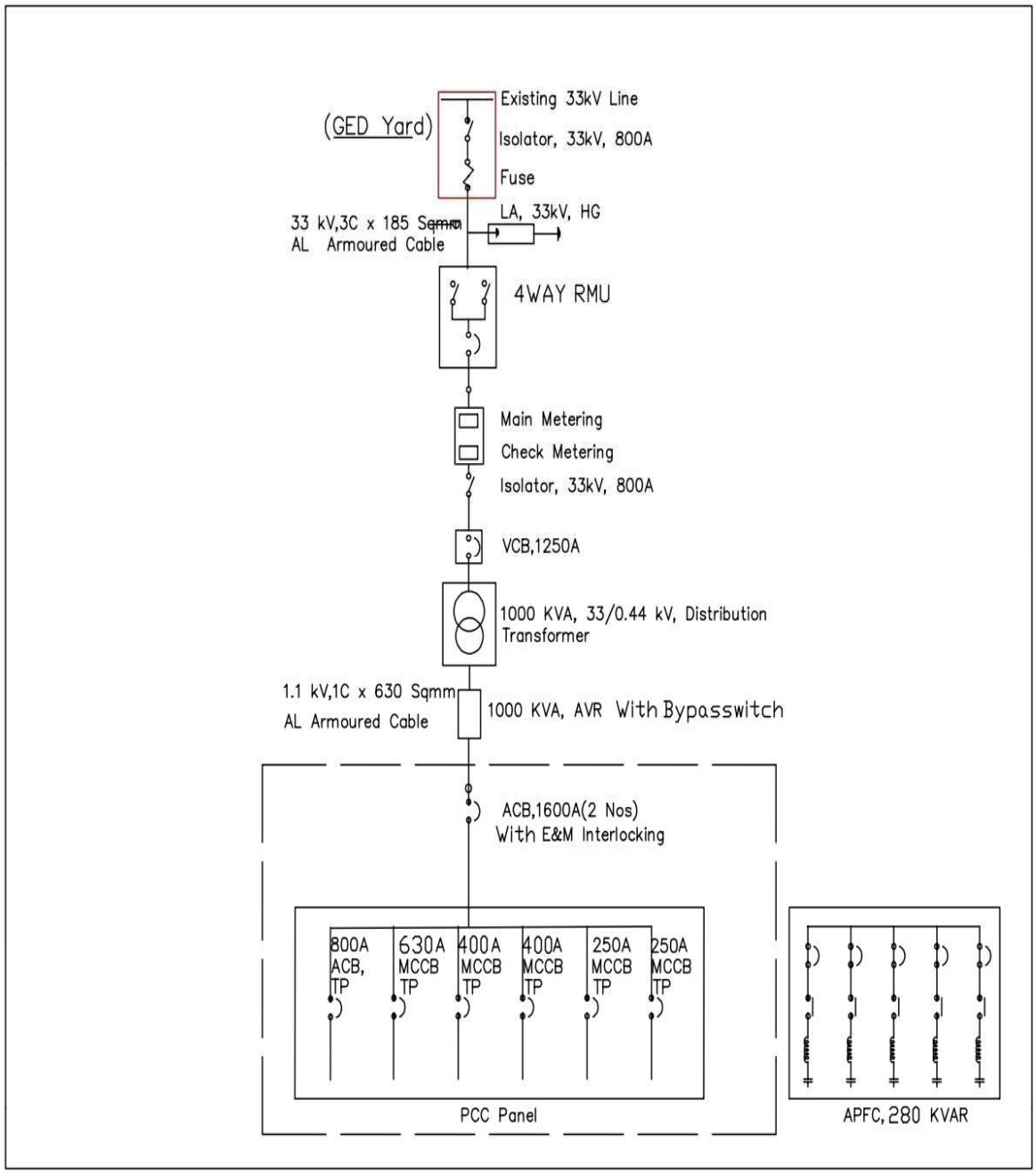
13. Single Line Diagram's:



(HT Work at GED Yard)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Single Line Diagram for 33KV 1MVA Substation at IIT Goa



Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

14. TECHNICAL SPECIFICATIONS

These technical specification shall be read in conjunction with the standard conditions of the contract with correction slips, as are relevant for commercial aspects, as well as schedules and drawing and requirements under these specifications and CPWD General Specifications of Electrical Works Part I Internal 2023, Part II External-2023, Part IV Sub-Station 2013 & CPWD Specification for Civil Vol I & II 2019 shall be followed. Link for these are as under:
https://cpwd.gov.in/Documents/cpwd_publication.aspx

In the event of any discrepancy between these specifications and inter connected documents, the technical requirements as per schedule of quantities shall be followed and deemed to be having overriding.

1. Ring Main Unit (RMU)

a) **Technical Specification of RMU:**

This Specification covers Design, Engineering, Manufacture, Inspection and Testing of 33 KV Ring Main Unit. The RMU to be supplied against this specification are required for installations where continuity of service is very important. The RMU The design, materials and manufacture of the equipment shall, therefore, be of the highest order to ensure continuous and trouble-free service over the years RMU shall comprise the required numbers of the following types of modules.

- 2 No 630 A Motorized 33 KV VCB + 2 Nos Load Break Switch, with Protection Relay + Current Transformer + CVDI + FPI.
- Common Control Chamber with PT + Aux Control Transformer + Battery + Charger

Note: The RMU should be as per technical specification & approved make of Goa Electricity Department. In case of any discrepancy, the GED specs will prevail.

b) **RMU Circuit Breaker Specification:**

a) The Circuit Breakers shall be maintenance free and, when standing in front of the RMU with enclosure doors open, their positions shall be clearly visible. The position indicator shall provide positive contact indication in accordance with IS 9920. In addition, the manufacturer shall prove the reliability of indication in accordance with IS 9921: Alternating Current Disconnectors (Isolators) and Earthing Switches for Voltages above 1kV

b) The breakers shall have three positions (or states), i.e., Open, Closed, and Earthed, and shall be constructed in such a way that natural interlocking prevents unauthorized operations. They shall be fully assembled, tested, and inspected in the factory. An operating mechanism shall be used to manually close the Circuit Breaker and charge the mechanism in a single movement. It shall be fitted with a local system for manual tripping. There shall be no automatic reclosing. The Circuit Breaker shall be capable of closing fully and latching against the rated making current. Mechanical indication of the OPEN, CLOSED, and EARTHED positions of the Circuit Breaker shall be provided.

c) When the Circuit Breaker closing mechanism is of the spring-operated type, it shall not be possible for the Circuit Breaker to close until the spring is fully charged and the associated charging mechanism is fully ready for closing. Wherever an external spring charging handle is required to charge the spring, it shall be ensured that the same is not allowed to move during release of the spring energy. Alternatively, it shall not be possible to release the spring

energy until the charging handle is completely disengaged from the mechanism. A visual mechanical indicating device shall be provided to indicate the status of the spring, i.e., SPRING CHARGED or SPRING FREE. It shall be possible to charge the spring when the Circuit Breaker is closed and, if the spring is released, the Circuit Breaker shall not open. Nor shall this operation result in any mechanical damage to the component of the Circuit Breaker or its operating mechanism. Alternatively, a fast-acting reflex mechanism for Circuit Breakers is also acceptable.

d) The RMU shall be fitted with spring charge motors of insulation Class E or better allowing the circuit breakers to be operated without manual intervention. Motor speed shall ensure springs can be charged within 1 to 2 seconds. Independently of DAS control, the mechanism shall ensure that the motors start up immediately once the spring becomes discharged, so that the breaker becomes ready for the next operation. In addition to allowing circuit breaker tripping by the RMU's protection relays, the motorized operating mechanism shall be suitable for remote control

c) **RMU Earthing:**

a) There shall be continuity between metallic parts of the RMUs and cables so that there is no dangerous electric field in the surrounding air and the safety of personnel is ensured.

b) The Earthing Switch shall be operable only when the main switch is open. In this respect, a suitable mechanical fail-proof interlock shall be provided. The Earthing Switch shall be provided with a reliable earthing terminal for connection to an earthing conductor having a clamping screw suitable for the specified earth fault conditions. The Earthing Switch shall be fitted with its own operating mechanism. In this respect, manual closing shall be driven by a fast-acting mechanism independent of the operator's action.

d) **Type Tests and Routine tests for RMU:**

The type test reports/ certificates of the tests shall be performed as per applicable IS/IEC standards and shall be supplied for approval before offering the material for inspection. The details of type test certificate according to the composition of the Switchboard shall also be submitted with the offer. Following shall constitute the type tests:

Acceptance Tests:

All the tests specified under Routine Test Clause above shall be carried out as acceptance test on random samples as per sampling plan under IEC/IS for each lot. ln addition operation of RMU along with PROTECTION RELAY-IEC-61850 communication should be demonstrated during factory inspection in manufacturer's factory failing which the supplies shall not be accepted.

Note: Bidder should have all the requisite testing equipments to carry out routine and acceptance test mentioned above including:

Pre Commissioning Test:

Pre-commissioning test to be conducted on each RMU before installation and commissioning are as under:

a) IR Value.
b) HV test (AC).
c) Primary injection with timing of breaker including relay and CT circuit.
d) Contact resistance.
e) Any other test as recommended by OEM

2. LT/HT Cables

a) Scope:

The specification covers design, manufacture, testing, packing & delivery of 33kV/1.1kV grade aluminium conductor, XLPE insulated, armoured power cable conforming to relevant IS standards. These cables shall be primarily be designed for effectively earthed neutral system.

Unless otherwise specified elsewhere in this specification, the rating as well as performance & testing of the XLPE power Cables shall conform to the latest revisions available at the time of placement of order of all the relevant standards as listed in, but not limited List of standards (all amended up to date).

b) General Technical requirement

- Cable shall be manufactured using proven modern process ensuring void-free insulation and compliance with IS standards for all ratings and sizes of the cables covered by this & shall be insulated with XLPE of natural color. Identification of cores shall be by color, as per provision of clause 13.1 of IS:7098 (part 2)-1985
- The Insulation (XLPE) screening shall be provided consisting of extruded semi-conducting cross link material in combination with a metallic layer of copper tapes. Three such screened cores shall be laid up together with fillers and/or binder tapes where necessary & provided with extruded inner sheathing of heat resistant PVC conforming to type ST-2 of IS:5831-1984.
- Maximum inner sheathing of heat resistant PVC conforming to type ST-2 of IS: 5831-1984.and shall be thru extrusion
- Armouring shall be provided consisting of single galvanized round steel wires conforming to IS:3975- 1988 (amended upto date) & over the armouring a tough outer sheath of PVC compound shall be extruded. The PVC compound for the outer sheath shall conform to type ST-2 of IS:5831-1084 (amended upto date). Armoring shall be provided with rubberized cotton tape. The color of outer sheath shall be black. The cable shall be manufactured strictly conforming to IS:7098(part 2)-1985 amended up to date & shall bear ISI mark.
- Sequential marking of length on cable shall be non erasable sequential marking of length shall be provided by embossing on outer sheath of the cable for each meter length. Cable tagging shall have to be provided for all types of cable indicating cable size & connections.
- The quality of insulation should be good & insulation should not be deteriorated when exposed to the climatic conditions. Discharge free construction.
- Inner conductor shielding, XLPE insulation & outer shielding shall be extruded in one operation by special process (viz. triple extrusion process) to ensure that the insulation is free from contamination & voids & perfect bonding of inner & outer shielding with insulation is achieved. The bidders are requested to elaborate the manufacturing technique adopted by their manufacturers to achieve this motive. XLPE formation shall be achieved through dry curing process only either with steam or gas.
- The bidder shall furnish OEM test certificates of all cables supplied.

3. Servo Voltage Stabilizer (AVR)

- The Servo Voltage Stabilizer (AVR) with a capacity of 1000 kVA, suitable for three-phase electrical systems. The unit shall be designed for indoor installation and shall utilize an oil-cooled system to provide effective thermal management and ensure reliable performance under continuous and heavy load conditions.
- The stabilizer shall support a custom-defined input voltage range, as per site or utility requirements, enabling flexibility across diverse operational environments. The output voltage shall be maintained at 400V ±1%, ensuring a stable supply of

230V per phase, suitable for the protection and optimal operation of sensitive electrical equipment.

- The unit shall be equipped with integrated high and low voltage protection mechanisms to safeguard connected loads from voltage fluctuations, surges, and sags. The stabilizer shall operate using a servo motor-controlled system, offering precise and swift voltage regulation with minimal response time.
- All components and performance parameters shall comply with relevant national/international standards and quality requirements applicable to such equipment.

S.No	Description	Requirement
1	Capacity	1000 KVA
2	No. of Phases	Three Phase
3	Type	Oil Cooled
4	Compliance	IS-9815 amended up to date.
5	Input Voltage	Voltage Range Min-360V to Max-470V
6	Output Voltage	400 Volts (Phase-Phase) : 230 Volts (Phase-Neutral)-
7	Frequency.	50 Hz.
8	Cooling	Oil Cooled
9	Mode of Operation	Automatic through Microprocessor ba sed controller module. Manual through Raise/Lower Micro Switches
10	Type of Cooling	ONAN
11	Core Used	CRGO M4 Grade
12	Conductors used	Copper
13	Quality of Copper	Electrolytic Grade with Prime New Copper
14	Purity of copper	99.99% pure grade
15	Service	By default indoor (IP42).
16	Output Accuracy	± 1% from No load to full load
17	Class of Insulation	A Class for Oil cooled
18	Response Time	Instantaneous (milisec.) 0.02 sec
19	Overload Capacity	The Rotary type regulator based servo voltage stabilizer shall withstand 50% over load for 30 seconds & 75% over load for 10 Seconds
20	Wave Form Distortion	Stabilizer should not be affected with wave form distortion
21	Harmonics Distortion	Stabilizer should not generate harmonics
22	Efficiency	more than 99%
23	Losses at No Load	0.13% of the total capacity
24	Losses at Full load	0.7% at full load.
25	Paint Type	Epoxy type or powder coating suitable for corrosive environment
26	Metering	Digital meter with micro switches to choose Input/output Voltage
27	Terminations	Suitable busbars shall be provided in the termination box as per IS/IEC standards for input & output terminations

28	Expected Working Life	More than 25 years
29	Control Panel	Control Panel shall be provided on the front side of the equipment & control cards in the panels shall be far from the heating area.
30	Indications	Input ON, Trip indicators combined wit h Input HIGH Input Low

4. Indoor Vacuum Circuit Breaker (VCB) Panel

- The work under this contract includes the Supply, Installation, Testing, and Commissioning (SITC) of a 33kV Indoor Vacuum Circuit Breaker (VCB) Panel with all associated components, control, protection, and metering equipment, complete in all respects and in full compliance with the latest IS/IEC standards (including IS/IEC 62271 as amended up to date).
- The VCB panel shall be of indoor, metal-enclosed, draw-out type construction, suitable for 33kV system voltage and rated for a continuous current of 1250 Amperes. The panel shall have an Electro-Dynamic Operation (EDO) type breaker mechanism and shall be capable of withstanding and interrupting a symmetrical short-circuit current of 26.3 kA for a duration of 3 seconds. It shall be equipped with both fixed and moving contacts, ensuring robust electrical and mechanical performance under operating and fault conditions.
- The breaker shall have a total of 8 Normally Open (NO) and 8 Normally Closed (NC) auxiliary contacts rated for 24V DC operation. It shall include a 110V DC closing coil and a 110V DC shunt trip coil for control functions. The spring charging mechanism shall be motor-operated, using a 230V AC supply.
- The panel shall be provided with a fully rated and suitably sized aluminium busbar system. The busbars shall be supported on insulators and shall have phase spacing conforming to the applicable IS/IEC standards. Adequate clearances and insulation coordination shall be maintained for safe and reliable operation.
- A maintenance-free battery bank (preferably VRLA type) along with a suitably rated battery charger shall be supplied. The battery system shall be capable of providing a minimum backup of 20 minutes for all DC control, protection, and signalling circuits associated with the VCB panel. All cabling from the battery charger to the VCB panel shall be included within the contractor's scope.
- The panel shall also include a power pack rated for 230V AC/110V DC with a capacity of 100 watts and a minimum 15-minute backup to support essential operations during power failures.
- The VCB panel shall be equipped with instrument transformers including Potential Transformers (PTs) and Current Transformers (CTs). The PTs shall be connected in a Star/Star configuration with a burden of 50 VA and insulation class E. The PTs shall have two cores: Core 1 with an accuracy class of 0.5 for metering, and Core 2 with an accuracy class of 3P for protection. The voltage factor shall be 1.2 continuous and 1.5 for 30 seconds.
- The CTs shall be of dual-ratio type with primary ratios of 75-150/5-5 A. Each CT shall have two cores: Core 1 shall have an accuracy class of 0.5 for metering, and Core 2 shall have an accuracy class of 5P10 for protection. The burden for each core shall be 10 VA, totaling 10+10 VA per CT.
- For protection, the panel shall be equipped with a numerical Overcurrent (O/C) and Earth Fault (E/F) relay of type A22F. A master trip relay and auxiliary relays shall be provided for transformer fault management. All relays shall be suitable for integration with SCADA systems and shall support communication protocols such as RS-485 (Modbus or equivalent).

- Metering instruments shall include a digital ammeter with an ammeter selector switch (ASS), and a digital voltmeter with a voltmeter selector switch (VSS). These meters shall be of high accuracy and support RS-485 communication for remote monitoring and data logging.
- A 12-window LED-type annunciator with an audible hooter shall be provided for alarm indication. The annunciator shall include necessary pushbuttons for alarm reset, acknowledge, and test functions.
- The control section of the panel shall include a breaker control switch with spring-return to neutral position, enabling ON/OFF/Trip operations. A local/remote selector switch shall also be provided for control mode selection. Indicating lamps shall be provided for R, Y, B phases (voltage presence indication) as well as for breaker status indication including ON, OFF, TRIP, spring charged, test, and service positions.
- The panel shall be equipped with a space heater controlled through a thermostat to prevent internal condensation. All necessary internal wiring shall be carried out using appropriately rated copper wires. Miniature Circuit Breakers (MCBs) of suitable capacity shall be used for control circuit protection.
- All components and wiring shall comply with the latest editions of applicable Indian and International Standards, including but not limited to IS/IEC 62271, IS 2705 for current transformers, IS 3156 for voltage transformers, IS 3427 for switchgear assemblies, and IS 13947 for circuit breakers and protective devices.
- The scope also includes the installation, alignment, fixing, grouting, termination of power and control cables, functional testing of all protective relays, metering instruments, CTs, PTs, battery system, annunciator, and the breaker itself. The contractor shall carry out insulation resistance testing, primary injection testing, secondary injection testing of protection relays, continuity checks, earthing verification, and submission of all test reports prior to final commissioning.
- The Bidder shall provide complete documentation including General Arrangement drawings, single line diagrams (SLD), wiring diagrams, routine test reports, manufacturer’s test certificates, user manuals, warranty certificates, and as-built drawings in both hard and soft copies.
- All necessary hardware such as lugs, glands, mounting accessories, fasteners, earthing strips, and any other materials required to make the system complete and operational shall be deemed to be included in the contractor's scope of work.

5. Indoor Power Control Centre (PCC) Panel

- The work under this contract includes the complete Supply, Installation, Testing, and Commissioning of an Indoor Power Control Centre (PCC) Panel suitable for floor mounting. The panel shall be of dust and vermin-proof, indoor type, and fully compartmentalized cubicle construction. It shall be fabricated from 1.6 mm thick CRCA sheet steel, with front doors designed as hinged type and fitted with neoprene gaskets to ensure proper sealing against dust and moisture.
- All internal panel wiring shall be carried out using appropriately sized FRLS or HFFR insulated copper conductors, rated for 1100V. Each functional compartment in the panel shall include necessary separators, spreaders, phase barriers, insulator supports, and safety signage’s to ensure operator safety and compliance with relevant standards.
- The busbar system shall comprise high conductivity aluminium busbars of rated capacity 1600A for phases and neutral, and shall be mounted on DMC/SMC supports to withstand thermal and mechanical stresses. A separate copper earth busbar shall be provided, and all non-current-carrying metallic parts of the panel (such as doors and frames) shall be bonded to the earth busbar using suitably sized copper or GI conductors.

- The panel shall be complete with all required accessories such as nameplates, circuit designation labels, feeder tags, safety instruction labels, and earthing studs. All cable entries and terminations shall be properly enclosed and protected using removable gland plates.
- After completion of installation, the entire panel shall undergo site testing to verify electrical continuity, insulation resistance, earthing connections, and functional operation of breakers, meters, relays, and interlocking systems. The panel shall also be tested for correct operation of all protection settings and feeder switching. Final commissioning shall be carried out only after successful performance of all tests and verification by the Engineer-in-Charge, who shall issue the formal commissioning certificate.
- The Bidder shall also supply as-built drawings, wiring diagrams, circuit layouts, test certificates, OEM catalogues, and operation and maintenance manuals for the PCC panel.

6. Transformer

- The transformer shall be 1000 kVA, 3-phase, 50 Hz, Dyn 11 vector group, designed for continuous operation with ONAN cooling. It shall use electrolytic grade copper windings (99.9% purity) and CRGO core to ensure high efficiency and reliability. Suitable for both indoor and outdoor installation.
- Energy Efficiency & Standards - The transformer shall be BEE 5 Star rated (latest applicable level) ensuring energy efficiency. Design, manufacturing, and testing shall comply with IS: 2026, IS: 1180, and CPWD specifications, ensuring quality, safety, and performance standards.
- OLTC & Control System - The transformer shall be equipped with On Load Tap Changer (OLTC) on the HV side with a range of +5% to -15% in 2.5% steps. It shall include AVR relay and RTCC panel for automatic voltage regulation, along with provision for manual and remote operation. Communication ports (Ethernet/RS485/SNMP) shall be provided for seamless BMS integration.
- Performance Requirements - The design shall ensure maximum flux density not exceeding 1.9 Tesla under voltage variation conditions. Temperature rise shall be limited to 40°C for oil and 45°C for winding. Noise levels shall comply with NEMA/IEC standards, ensuring safe and efficient operation.
- Design & Environmental Conditions - The transformer shall be designed to operate under site conditions including ambient temperature up to 50°C, relative humidity up to 90%, and applicable altitude and seismic conditions, ensuring durability in harsh environments.
- Accessories & Safety Features - The transformer shall be complete with essential accessories such as Buchholz relay, oil and winding temperature indicators with tripping, explosion vent/pressure relief device, silica gel breather, oil level indicator, conservator, lightning arrestors, cable end boxes, and earthing terminals. These ensure protection, monitoring, and safe operation.
- Construction & Finish- Internal surfaces shall be coated with oil-resistant varnish, while external surfaces shall have epoxy primer and polyurethane/powder coating as per IS standards. This ensures corrosion resistance and long service life under various environmental conditions.
- Monitoring & Identification - The transformer shall have a QR code containing drawings, test reports, and OEM details for easy access to technical data. A durable rating plate (SS/anodized aluminium) shall be provided with permanent markings as per IS standards.
- Completion - The system shall be handed over in fully operational condition, complete with testing as per applicable IS/IEC standards amended up to date, documentation, and approval from the Engineer-in-Charge.
- The CPWD Specification Part-IV substation shall have to be follow.

7. SCADA System

Design, Supply, installation, testing, and commissioning of a comprehensive SCADA (Supervisory Control and Data Acquisition) System for complete substation equipment including RMU, Transformer, RTCC, VCB, ACB, AVR, APFC, PCC Panel, Multifunction Meters (MFMs), etc. The scope shall include all necessary panel control wiring, thimbles, ferruling, terminations, networking, programming, configuration, testing, and commissioning, complete in all respects to ensure seamless monitoring, control, and integration of the electrical system.

a) **Programmable Logic Controller (PLC)**

Supply and installation of Siemens/L&K or other equivalent make PLC modules. These PLCs shall act as the central automation units for real-time data acquisition, control logic execution, and communication with the SCADA system. The PLC shall support industrial protocols including IEC 61850 and ensure reliable performance under substation conditions.

b) **SCADA Software / Tag Module**

Supply and configuration of Siemens/L&K or other equivalent make SCADA system. The SCADA software shall provide a graphical user interface for real-time monitoring, control, alarm management, historical data logging, trending, and reporting. The system shall support open protocols for integration with IEDs and BMS systems.

c) **Protocols and Communication Standards**

The SCADA system shall support IEC 61850 protocol for communication with Intelligent Electronic Devices (IEDs), ensuring interoperability, high-speed communication, and scalability.

d) **Hardware Architecture**

- Remote Terminal Units (RTUs) shall collect real-time data from IEDs and field equipment (transformers, breakers, RMUs, etc.) and transmit it to the SCADA system. They shall also execute control commands issued from the SCADA workstation.
- Communication Gateways shall be provided to interface PLCs, RTUs, and IEDs with the communication network, ensuring seamless protocol conversion and data exchange.
- Networking Infrastructure - Industrial-grade networking shall be implemented using Fiber Optic (FO) and/or CAT6 Ethernet cables to ensure high-speed, reliable, and secure communication.

e) **Software Features and Functionality**

- Data Acquisition - The SCADA system shall support real-time acquisition of analog and digital parameters such as voltage, current, breaker status, transformer temperature, APFC status and all other equipment conditions.
- Control Functions - Remote operation of VCB, RTCC, AVR & ACB etc, shall be provided with proper interlocking logic to ensure operational safety and reliability.
- Alarm and Event Management - The system shall include configurable alarms, event logging, annunciation, and diagnostic features.
- Visualization and Reporting- Graphical mimic diagrams, historical trends, and automated reporting features shall be provided for effective monitoring and analysis.

f) **Communication Links**

- Communication shall be established through CAT6 cables and/or Fiber Optic cables.
- Modems shall be provided with self-diagnostic features, programmability, and non-volatile memory to retain settings during power failure.

g) **Server PC for SCADA**

Supply, installation, testing, and commissioning of a dedicated Server PC for hosting SCADA applications with the following minimum specifications:

- Processor: Intel Core i7, minimum 8 cores, base clock speed 3.0 GHz or higher, 64-bit architecture
- Memory (RAM): Minimum 8 GB DDR4 (expandable)
- Storage: Minimum 1 TB HDD (7200 RPM or better)
- Optical Drive: DVD-ROM drive
- Network Interface: Minimum 2 Nos. Network Interface Cards (NICs) with at least 4 ports in total
- Graphics: Dedicated graphics card with minimum 1 GB VRAM
- Ports: Minimum 2 USB ports (preferably USB 3.0 or higher)
- Monitor: 24-inch Full HD LED monitor
- Input Devices: Standard keyboard and optical mouse (3-button with scroll wheel)

h) **Software Requirements:**

The Server PC shall be preloaded and configured with the following software:

- Microsoft Office 2010 or higher (32-bit version)
- Windows Operating System (Windows 10 or higher, 64-bit)
- Licensed Anti-Virus software
- All necessary drivers and utilities required for seamless operation of the SCADA system

The Server PC shall be fully compatible and optimized for SCADA application performance, including data logging, visualization, and communication handling.

i) **System Integration and Cabling**

Complete control and communication wiring from field equipment to PLC/RTU panels shall be included, with proper termination using lugs/thimbles, ferruling, dressing, labeling, and cable management as per standards.

j) **Testing and Commissioning**

Complete testing including:

- I/O verification
- Communication testing (IEC 61850 and other protocols)
- Functional and logic checks
- Site Acceptance Testing (SAT)

Final commissioning shall ensure reliable and integrated operation of the SCADA system.

k) **Standards and Compliance**

The entire system shall comply with relevant IEC standards (including IEC 61850), along with applicable industrial automation and electrical safety standards, ensuring reliability, safety, and performance.

15. SCOPE OF WORK & TECHNICAL SPECIFICATION FOR PREFABRICATED SUBSTATION ROOM.

1. All items of work shall conform to the specifications mentioned in the Schedule of Quantities, CPWD General Specifications for Civil Works Vol. I & II (2019), relevant Indian Standard Codes, National Building Code (NBC), and all amendments issued up to date, and shall be executed as per the directions of the Engineer-in-Charge.

2. Civil works up to plinth level, including foundations, pedestals, PCC/RCC base slab, flooring, and allied works, shall be executed at site. The entire superstructure above plinth level shall be factory-manufactured in complete knock-down condition and assembled/erected only at site.

3. The scope of work includes complete design, engineering, fabrication, supply, transportation, unloading, storage, installation, erection, testing, commissioning, and handing over of a factory-manufactured prefabricated building complete in all respects.

4. The building size shall be 10.00 m × 10.00 m with a minimum clear internal height of 3.00 m above finished floor level.

5. The work shall include preparation and submission of complete engineering design, GA drawings, erection drawings, and execution drawings based on relevant Indian Standards for approval of the Engineer-in-Charge prior to commencement of fabrication and erection.

6. All structural and non-structural components shall be factory-fabricated to ensure dimensional accuracy, consistency, proper fitment, durability, and quality control.

7. The structural framework shall consist of tubular/rolled steel sections including columns, roof trusses, rafters, purlins, ties, sag rods, bracings, cleats, stiffeners, gusset plates, and all secondary/supporting members necessary for adequate strength, rigidity, load transfer, and overall structural stability. All these structural steel sections shall confirm to the relevant BIS Code.

8. The prefabricated structure shall be erected over the cement concrete/RCC flooring or base slab cast at site as per approved drawings, dimensions, levels, slopes, and alignment.

9. Steel columns shall be fixed over RCC foundations/pedestals with properly designed and fabricated base plates, anchor bolts, nuts, washers, shims, packings, and non-shrink grout complete.

10. Base plates shall be of adequate thickness and size, properly designed to safely transfer dead load, live load, wind load, seismic load, and all other imposed loads to the RCC foundations.

11. Anchor bolts shall be accurately positioned using templates, securely embedded in concrete with sufficient anchorage length and proper projection above finished foundation level to facilitate correct alignment, plumbing, and tightening of columns.

12. The walling and roofing system shall consist of PUF insulated sandwich panels of approved thickness and make, including complete supply and fixing with all trims, flashings, ridge pieces, corner pieces, end closures, sealants, fasteners, and accessories to provide a weatherproof, leak-proof, thermally efficient enclosure.

13. Roofing shall be designed and installed with proper slope for rainwater drainage and shall include ridge caps, eave flashings, verge flashings, closures, sealants, and all accessories complete.

14. Wall panels shall be fixed true to line and level with proper interlocking arrangement, sealing, and fixing system to prevent ingress of water, dust, and air leakage.

15. The contractor shall provide and install doors (aluminium for internal and PUF Panel for external), windows, ventilators, louvers (where required), complete with frames, shutters, fittings, hinges, handles, tower bolts, locks, stoppers, glazing, beading, rubber gaskets, sealant, and all necessary hardware complete.

16. The work shall include rainwater disposal arrangements comprising PVC gutters, rainwater channels, down-take pipes, bends, shoes, brackets, clamps, connectors, outlets, and all fittings required for proper drainage of roof water.

17. All bolts, nuts, washers, self-drilling screws, rivets, cleats, inserts, anchors, brackets, gaskets, EPDM strips, neoprene washers, sealants, consumables, and fixing accessories required for complete installation shall be deemed included in the scope.

18. All structural steel members and exposed steel surfaces shall be cleaned, surface prepared, primed, and finished with synthetic enamel paint of approved shade in two or more coats over suitable primer, complete as directed.

19. The contractor shall arrange at his own cost all labour, supervision, tools and plants, tackles, scaffolding, staging, ladders, hydra, cranes, welding machines, cutting equipment, machinery, safety gear, temporary supports, and all other resources required for execution of the work.

20. The contractor shall also arrange water supply, power supply, lighting, storage space, watch and ward, protection of materials, and all temporary facilities required for completion of the work.

21. The work shall include transportation from factory to site, loading, unloading, stacking, safe custody, handling, shifting, erection, alignment, leveling, plumbing, bolting, welding, grouting, finishing, and making good all damages during execution.

22. All members shall be erected true to line, level, plumb, and dimensions as per approved drawings, and all connections shall be properly tightened/welded and checked for stability.

23. The completed structure shall be fully functional, structurally safe, stable, durable, leak-proof, weatherproof, and ready for installation/use of electrical, mechanical, or other equipment.

24. Any minor civil, structural, or finishing item not specifically mentioned but essential for safe, complete, proper, and functional execution of the prefabricated

structure shall be deemed included in the contractor's quoted rate, and no extra payment shall be admissible on this account.

25. The contractor shall comply with all applicable safety regulations, labour laws, quality standards, and statutory requirements during execution of the work.

Technical Specifications:

Item	Description
MS STRUCTURE	Steel work in built up tubular trusses (round, square or rectangular hollow tubes etc.) including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. The structure shall be painted with two or more coat of synthetic enamel paint. The structure should be of adequate design. Agency to submit with design & drawings for approval of EIC before fabrication.
WALL PANEL	Providing and fixing PUF Insulated continuous sandwich panels for walls of total thickness not less than 50 mm and width 1.0 m made out from continue line method on automatic plant. Panel shall have 0.35 mm thick pre coated GI sheet on both side of Polyurethane foam confirming to IS 12436:1988.The Precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS : 277:1992, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 micron. The PPGI Sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during transportation. The panels shall be vertically joined together by tongue and groove joints. The PU Foam shall be self-extinguishing, fire-retardant type having minimum density of 38 Kg/Cu.mt. (+,- 2 Kgs) including 0.25 mm thick craft paper edging on both edges. The panels shall be fixed to the steel frame structure with minimum 5 mm thick self-tapping GI screws of required length and nos. with minimum spacing of 300 mm c/c.
ROOF PANEL	Providing and fixing PUF Insulated continuous sandwich panels for Roofs of total thickness not less than 30 mm made out from continue line method. Panel shall have 0.35 mm thick pre coated GI sheet at outer side and 0.3 mm Precoated G.I sheet at inner side of Polyurethane foam with external face being corrugated in shape for GI and PU foam both material. The crest height of the panel shall be of 35 mm minimum with 250 mm c/c pitch. The Precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of 120 gsm as per IS : 277, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18

	micron. The PPGI Sheet shall have protective guard film of minimum 25 microns to avoid scratches while transportation. The roof panels are laid over a frame work of trusses, columns and purlins fixed using 90 mm self-drilling bolt with rubber washer including all types of flashings. PU Foam must be self-extinguishing, fire retardant type having minimum density of 40 Kg/Cu.mt. (+,- 2 Kgs) including 0.25 mm craft paper edging, self tapping screws of required length and nos. etc complete as per structural design and direction of Engineer-in-charge
Sun shade Cover	Providing and fixing cover for sun-shade made out with 0.5 mm thick P.P.G.I. sheet in require size and shape. The chajja of minimum width of 600mm should be provided along all the four side. The slope should be provided in such a way that the rain water should drain off quickly.
Bottom U Track	Providing and fixing of Bottom and top U track for closing of end joints for cut PUF panels of size of 50 mm x 30 mm with 5 mm lipping on Both edges. The U track shall be made out of 1 mm thick pre coated GI sheet. The precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS:277:1992, 5-7 microns epoxy primer on both side of the sheet and polyester top coat of 15-18 micron over primer. The PPGI sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during transportation. The U track shall be fixed with suitable Fasteners.
Inner Flashing	Providing and fixing of Corner Angle for Various Flashing in 50 x 50 mm size in Equal Shape with 5 mm edge lipping on both side. The Angle Flashing shall be made out of 0.5 mm thick pre coated GI sheet with edge bending of approximate 5 mm. The pre coated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS:277:1992, 5-7 microns epoxy primer on both side of the sheet and polyester top coat of 15-18 micron over primer. The PPGI sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during transportation. The Inner flashing shall be fixed with suitable pop rivet with wall and roof panels with minimum spacing of 450 mm c/c.
Outer Flashing	Providing and fixing of Corner Angle for Various Flashing in 100 x 100 mm size in Equal Shape with 5 mm edge lipping on both side. The Angle Flashing shall be made out of 0.5 mm thick pre coated GI sheet with edge bending of approximate 5 mm. The precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of

	minimum 120 gsm as per IS:277:1992, 5-7 microns epoxy primer on both side of the sheet and polyester top coat of 15-18 micron over primer. The PPGI sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during transportation. The outer flashing shall be fixed with suitable pop rivet with wall and roof panels with minimum spacing of 450 mm c/c.
Outer & Inner Ridge	Providing and fixing of Ridge flashing for roof panel shall be made out of 0.5 mm thick pre coated GI sheet. The precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS:277:1992, 5-7 microns epoxy primer on both side of the sheet and polyester top coat of 15-18 micron over primer. The PPGI sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during transportation. The ridge shall be fixed to the steel members by pop rivet or self-drilling/self-stitching fastners @ maximum 450 mm c/c along length of capping/flashing etc complete
Roof End Cap	Providing and fixing of end cap of roofing panel. The end cap track shall be made out of 0.5 mm thick pre coated GI sheet suitable for 40 mm thick panel. The precoated sheet shall be of minimum 240 mpa steel grade confirming to IS 14246:1995 and shall have zinc coating of minimum 120 gsm as per IS:277:1992, 5-7 microns epoxy primer on both side of the sheet and polyester top coat of 15-18 micron over primer. The PPGI sheet shall have plastic protective guard film of minimum 25 microns to avoid scratches during transportation.
Doors	The door size depends on the substation panel and accessories. The door frame shall be made out with Min. 1.6 mm thick press steel sheet. 40 mm thick, door shutter shall be made out with Pre coated steel sheets both side of PUF. The door shutter shall be fixed with the door frame with SS hinges. The door shutter shall be provided with Aluminium Aldrops, Aluminium. tower bolt, door bolt and Aluminium Handles etc. Complete. One door for equipments and one fire exit door to be provided.
Sliding Window	Providing and fixing Two Track Sliding Type Aluminium window. Made out from extruded aluminium sections including cutting, fabrication, locking arrangement, necessary fitting, fixtures, 4 mm thick, plain glass as glazing etc. complete. (size of window 1.0 x 1.2 mt.). The gap between puff panel and window frame shall be filled with silicon sealant.
MISC. STEEL WORK	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all

	complete. In gratings, frames, guard bar, base plate, stiffener plate & similar works.
Painting work for MS Item	Painting with synthetic enamel paint of approved brand and manufacture in all shades to give an even shade: New steel work (two or more coats)
FLOOR	The floor shall be cement concrete floor of grade M20 casted at site, over a well compacted soil subgrade.
PVC Rain Gutter	PVC Rain water gutter joint to be provided with PVC fittings and screws etc. as per the direction of Engineer-in-charge. i) Gutter (175 mm over all girth)
WINDOW LOCKS	100mm concealed locks (best make of approved quality) to be provided for aluminium windows including necessary cutting and making good.
Sealant	All joints, gaps, and panel interfaces shall be neatly sealed with approved weatherproof sealant to prevent leakage and ingress of water.

PART – V : PROFORMA OF SCHEDULES

SCHEDULE 'A'

Schedule of quantities (Enclosed): As enclosed at Page No 156-172.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

Sl. No.	Description of item	Quantity	Rates in figure & words at which the material will be charged to the Contractor	Place of issue
..... **NIL**				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

Sl. No.	Description	Hire Charges per day	Place of issue
..... **NIL**			

SCHEDULE 'D'

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

--- NIL ---

SCHEDULE 'E'

Reference to General Condition of Contract.:

(i) In compliance with Rules 135 (1) and 139(i) of the General Financial Rules (GFR) 2017, the Institute adopted General Conditions of Contract (GCC) published by the Central Public Works Department (CPWD).

(ii) The Bidders are instructed to go through and understand the contents of the GCC before submission of the bids. For brevity, it is not enclosed with the NIT, but the same shall form part of the agreement.

(iii) The GCC may be downloaded from the URL: *https://cpwd.gov.in/Publication/GCC_CON_Misc_30_Construction_Works_2023.pdf*.

(iv) For the purpose of operating the GCC, the hierarchical mapping of CPWD and IIT Goa is done as given below:

Sl No	Designation as per CPWD	Designation as per IWD of IIT Goa
1	President of India	Board of Governors
2	Central Works Board	Building and Works Committee
3	Director General	Director
4	SDG/ADG	Dean (Infra & Support)
5	Chief Engineer	Dean (Infra & Support)
6	Superintending Engineer	Superintending Engineer/ Sr. Executive Engineer
7	Executive Engineer	Executive Engineer
8	Assistant Engineer/ Assistant Executive Engineer	Assistant Engineer
9	Junior Engineer	Junior Engineer

Name of the work	:	Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa
Estimated cost of work	:	Electrical = Rs. 1,69,10,362/- (incl GST) Civil = Rs. 18,26,236/- (incl GST) Composite = Rs. 1,87,36,598/-(incl GST)
Earnest money	:	***Rs. 3,74,732/-***
Performance Guarantee	:	(a) 5% of tendered value or Estimated Cost Put to Tender (ECPT) (whichever is higher). (b) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
Security Deposit	:	*5% of the accepted contract amount*

SCHEDULE 'F'

GENERAL RULES AND DIRECTIONS:		
Officer inviting tender:	:	*Dean (Infra & Support)*
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses12.2 & 12.3	:	*See Clause 12 below*
Definitions:		
2(v) Engineer -in- Charge (Major Component)	:	*Executive Engineer (Electrical), IIT Goa*
2(vi) Engineer -in- Charge (Minor Component)	:	*Executive Engineer (Civil), IIT Goa*
2 (vii) Overall Engineer in Charge of the Project	:	*Executive Engineer (Electrical), IIT Goa*
2(viii) Accepting Authority	:	*Director, Indian Institute of Technology, Goa.*
2(x) Percentage on cost materials and Labour to cover all overheads and profit	:	*15% (Fifteen) per cent.* *(7.5% OH + 7.5% CP)*
2(xi) Standard Schedule of Rate	:	**Civil Works** *1.DSR 2023 Volume-I & II i/c 0.973 correction factor on DSR 2023 + prevailing Cost Index as modified & corrected up to previous day of the last date of submission of bid.* **Electrical Works** *1. DSR-2025 (E&M) as modified & corrected up to previous day of the last date of submission of bid.* *2. Goa Electricity Dept. – GSR rates* **Non-DSR Items**: Local Market Rates
Standard Contract Form	:	*IIT Goa Agreement Form placed at Part-VII of the NIT*
Clause 1		

i) Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance, in days	:	*10 Days*
ii) ii)Maximum allowable extension with late fee at 0.1% per day of performance guarantee amount beyond the period provided in (i) above.	:	*7 Days*
Clause 2 Authority for fixing Compensation under Clause 2	:	*Dean(Infra & Support)* *Indian Institute of Technology, Goa*
Clause 5: (i) Authority to convey the decision of shifting of milestones and extension of time	:	*Executive Engineer (Electrical)*
(ii) Authority to decide Rescheduling of milestones and extension of time	:	*Dean(Infra & Support)*
(iii) Shifting of date of start in case of Delay in handing over of site	:	*Dean(Infra & Support)*
(i) Number of days from the date of issue of letter of acceptance for reckoning date of start	:	*10 Days or date of issue of LOC whichever is later*
Milestones		*Applicable*

Table of Milestones if Applicable

Sl. No.	Description of Milestone	Time Allowed (From Date of Start)	Amount to be withheld in case of non-achievement of Milestone
1	25% agreement value	One fourth of time allowed for completion.	In the event of non-achieving the necessary progress as assessed from the running payments, 2.5% of tendered value of work will be withheld for failure of each milestone.
2	50 % agreement value	One half of time allowed for completion.	
3	75% agreement value	Three fourth of time allowed for completion.	
4	100% agreement value	Full period of time allowed for completion.	

Clause-5.4:

Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days & further instructed by the Engineer in Charge:

Sl No.	Contract Value	Recovery
I	Less than or equal to Rs. 1 Crore	Rs. 500 per day
II	More than Rs. 1 Crore but less than or equal to Rs. 5 Crore	Rs. 1000 per day
III	More than Rs. 5 Crore but less than or equal to Rs. 20 Crore	Rs. 2500 per day
IV	More than Rs. 20 Crore	Rs. 5000 per day

Time allowed for execution of work	:	180 Days
Clause 6:- Measurement Book	:	*(i) For works having estimated cost more than Rs 15 Lakh – Clause 6* (ii) *For works having estimated cost Rs. 15 Lakh or less – Contractor's option of Clause 6 or as decided by the EIC.*
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	:	*18 lakhs*
Clause 7A: Whether Clause 7A is applicable	:	*Yes.* *No running account bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-charge.*
Clause 8A (i) Authority to decide compensation on account if contractor fails to submit completion plans.	:	Dean(Infra & Support)
(ii) Recovery rate for not submission of completion plans by the contractor	:	*0.1% of tendered value of all Components*
Clause 10A:		
List of testing equipment to be provided by the contractor at site lab	:	*As given in additional conditions/NIT document*
Clause 10B (ii)- Mobilization advance:	:	*Applicable*

Whether Clause 10 B (ii) shall be applicable		
Clause 10C: Component of labour expressed as percent of value of work	:	*Not Applicable*
Clause 10CC:	:	*Not Applicable*

If Clause 10 CC is Applicable: **Percentage component of materials & labour.**		
(i) Component of Cement	**:**	6%
(ii) Component of Labour	**:**	25%
(iii) Civil Component of other Construction Materials	**:**	34%
(iv) Electrical and Mechanical (E&M) Component of Construction Materials	**:**	11%
(v) Component of POL (Diesel)	**:**	1%
(vi) Reinforcement steel bars/TMT bard/structural steel (including strands and cables) component	**:**	23%
(vii) Component of Bitumen	**:**	0%
Total	**:**	**100%**

Clause 11:		
Specification to be followed for execution of work	:	**CIVIL WORKS** **<u>CPWD DSR Items</u>:** CPWD Specifications 2019 Vol. I & II, with up-to-date correction slips, **<u>For Road Works/MORTH Items</u>** MORTH Specifications 2013, with up-to-date correction slips. **<u>For ELECTRICAL WORKS</u>** **i) <u>CPWD DSR Items:</u>** CPWD General Specifications Part I Internal 2023 Part II External 2023 Part III Lifts & Escalators 2003 Part IV Substations 2013 Part V Wet Riser Sprinkler System 2020 Part VI Fire Detection and Alarm System 2018 Part VII DG Sets 2013 Part VIII: Gas based fire extinguisher systems 2013 all with up-to-date Corrections Slips. **<u>Others</u>:** All relevant BIS codes of practice, National Building Code (NBC), Local Bodies Norms, Statutory bodies Norms and all other relevant Codes, Guidelines, Regulations, Recommendations, Sound Engineering practices, Manufacturers' Specifications.
(ii) Building information model (BIM):	:	Not Applicable

Clause 12.2 (c):	Deviation Limit beyond which clauses12.2 (c) shall apply for building work.	*100%*
	i) Deviation Limit beyond which clauses 12.2 (c) shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items)	*100%*
	(ii) Deviation Limit for items mentioned in earth work subhead of DSR and related items	*100%*
(as per DG/CON/Construction 2023/03, Dt. 06.12.2023)		

Clause 16 Competent Authority for deciding reduced rates	:	Dean(Infra & Support)
Clause 17 Contractor liable for damages, defects during defect liability period.	:	(i) Defect liability period shall be 1 (one) year to be reckoned after the actual date of completion of the work (ii) The Contractor shall submit Warranty Bonds for items of Waterproofing, ante termite treatment, exterior painting, LED light fixtures, etc., for specified periods as per the contract.
Clause 18: List of mandatory machinery, tools & plants to be deployed by the contractor at site	:	*HT & LT Megger, Lux meter, Earth Tester, Tong Tester, Vernier calliper, Measuring tape, safety gloves HT & LT, safety helmet, safety harness etc as required for the work.*
Clause 19 C Competent Authority for deciding penalty	:	*Dean (Infra & Support), IIT Goa*
Clause 25: (i) Settlement of disputes by Conciliation and Arbitration:		
• Conciliator		*Dean (Infra & Support), IIT Goa*
• Authority to appoint arbitrator		*Director, IIT Goa*
• Place of Arbitration		*Goa*
• Venue of Arbitration		*IIT Goa*
• Type of Arbitration Tribunal		*Sole Arbitrator*
Note: (i) Provisions of Arbitration and Conciliation Act 1996 with latest amendments in force shall be applicable. (As per DG/CON/Construction 2023/18, dt. 16.06.2025) *(ii) Proforma for Appendix XVII, XVIII & XIX are available in the Standard GCC.*		

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

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Technical Representative)	Minimum Experience (years)	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 36(i) (INR) / Month / Each	
						Figures	**Words**
1	Engineering Graduate	Electrical	Sr. Technical Representative	10	1	50,000/-	Rupees Fifty Thousand Only
2	Diploma Engineer	Electrical	Technical Representative (Construction Manager)	5	1	30,000/-	Rupees Thirty Thousand Only
3	Diploma Engineer	Civil	Technical Representative (Construction Manager)	5	1	30,000/-	Rupees Thirty Thousand Only

Note: Assistant Engineers retired from government services that are holding diploma will be treated at par with graduate engineers.

Clause 38		
(i) (a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of "Delhi Schedule of Rates 2023 with correction slips up to previous day of last date of submission of bid.	
(ii)	Variations permissible on theoretical quantities:	
(a)	Cement	
	For works with estimated cost put to tender less than Rs.5 lakh	3% plus / Minus
	For works with estimated cost put to tender more than Rs.5 lakh	2% plus / Minus
(b)	Bitumen all works	2.5% plus only and nil on minus side
(c)	Steel reinforcement and structural steel sections for each diameter, section and category	2% plus/ minus
(d)	All other materials.	Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of Item	Rates in figures and words at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	**Less use beyond permissible variation**
1.	Cement	Nil	Not permitted
2.	Steel Reinforcement	Nil	Not permitted
3.	Structural Steel Sections	Nil	Not permitted

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

PART – VI : SPECIAL CONDITIONS OF CONTRACT [SCC]

6.1 Order of Preference

In case there is any discrepancy between the description of items as given in the item nomenclature under schedule of quantities, tender drawings, particular specifications for individual items of work, conditions, CPWD specifications and I.S. Codes etc., the following order of preference shall be observed.

a) Nomenclature of items as per the Schedule of Quantities in the bid document.
b) Tender conditions and Technical Specifications for civil works and E&M works.
c) General Conditions of Contracts (GCC) for Construction works -2023 with all correction slips upto previous day of the last date of submission of bid.
d) Architectural Drawings.
e) Delhi Schedule of Rates (latest version) For Civil and E&M works with all correction slips up to the previous day of the last date of submission of bid.
f) CPWD Specifications (latest version) For Civil and E&M works with correction slips up to the previous day of the last date of submission of bid.
g) Indian Standard Specifications of B.I.S. with any revisions/amendments up to the previous day of the last date of submission of bid
h) National Building Codes 2016.
i) ASTM, BS, or other foreign origin code mentioned in the tender document.
j) Manufacturer's specifications.
k) Sound engineering practices or well-established local construction practices.
l) Decision of Engineer-in-charge

6.2 Execution, Coordination and Drawings

1. The work shall be executed strictly in accordance with approved drawings, CPWD Specifications, BIS Codes, NBC, technical specifications and instructions of Engineer-in-Charge.

2. All drawings shall be properly correlated before execution. Any discrepancy shall be brought immediately to the notice of the Engineer-in-Charge. The contractor shall be solely responsible for execution based on unverified drawings.

3. The contractor shall coordinate with all agencies working at site and shall provide all openings, recesses, sleeves, inserts, hooks, conduits and supports for services without extra cost.

4. The contractor shall protect all benchmarks and reference points and shall be responsible for the correct setting out of works.

5. **Compliance with Local Bye-Laws, Rules And Regulations**:

   The work must fully comply with all relevant local bye-laws, Regulations of the Electric Supply Authority, Indian Electricity Rules and Regulations, latest Indian Standards and as per the requirements of the Chief Fire Officer, CPWD Safety Code and Labour Regulations etc., and the directions of the Engineer-in-Charge. The contractor is responsible for notifying applicable authorities, obtaining necessary licenses or permissions, and paying any required charges in the course

of execution of the work. No additional payment will be made for these obligations.

In the case the contract requires obtaining Local Body approvals and or Occupancy Certificate for the building, IIT Goa shall reimburse the Contractor the Government fees on actuals.

6. If security, traffic, or other authorities of the local Government or the Institute impose restrictions on work or movement, the contractor must comply without extra payment. Any resulting delays must be made up using additional resources as needed.

7. **All Heights, Lifts, Leads and Depths**

   Unless otherwise specified in nomenclature of item, 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.

8. The contractor shall, at his own expense and risk, arrange land for accommodation of labour, setting up of office, the storage of materials, the erection of temporary workshops, and the construction of approach roads to the site of the work. IIT Goa (Institute) shall not permit the setting up of labour camps within its premises. The contractor shall, however, be responsible for proper storage and safe custody of the same till their incorporation into the permanent works.

9. The contractor shall give a trial run of the equipment and machinery for establishing its capability to achieve the specifications within laid down tolerances to the satisfaction of the Engineer-in-charge before commencement of work.

10. The contractor shall be responsible for the true and proper setting out of the work in coordination with the Engineer-in-Charge and for the correctness of positions, levels, dimensions and alignments of all parts of the work, and shall provide all necessary instruments, appliances and labour. Any error in setting out shall, when required by the Engineer-in-Charge, be rectified by the contractor at his own cost to the satisfaction of the Engineer-in-Charge. Checking by the Engineer-in-Charge shall not relieve the contractor of this responsibility. The contractor shall protect and preserve all benchmarks, pegs and pillars provided for setting out the work.

11. **Manufacturers' Instructions**: Where manufacturer has furnished specific instructions, relating to the material and equipment used in this project, covering points not specifically mentioned in these documents, manufacturer's instructions shall be followed in that case duly bringing the same to the notice of EIC.

6.3 Associated Civil Work

All minor civil works associated with E&M installation are included in the scope of this contract, including all minor civil work like wall chasing by wall chaser, making holes, etc., for installation of conduits/cables and making good. These shall be executed in accordance with approved shop drawings.

6.4 Materials, Testing and Quality Control (as applicable)

1. The contractor shall obtain prior approval of sources and samples of all materials with Make & Technical Data Sheet (TDS) from Engineer-in-Charge. Materials used shall strictly conform to approved samples and specifications.
2. All materials shall be inspected and tested as directed. Testing shall be carried out in approved laboratories. Cost of sampling, transport, testing and retesting shall be borne by the contractor unless otherwise specified.
3. Materials used without approval shall be liable for rejection and removal at contractor's cost.
4. Even ISI marked materials shall be subjected to quality test at the discretion of the Engineer-in-charge besides testing of other materials as per the specifications described for the item/material. Whenever ISI marked materials are brought to the site of work; the contractor shall, if required by the Engineer-in-charge, furnish manufacturers test certificates to establish that the material procured by the contractor for incorporation in the work satisfy the provisions of IS codes relevant to the material and/or the work done.
5. The contractor shall submit a Quality Assurance Plan within two weeks of award and strictly implement quality control measures.
6. **Quality of material:**

   All materials and equipment supplied by the contractor shall be new and must be in the Original sealed packaging. Relevant vouchers and test certificates will be produced as and when required. Manufacturers' Test certificates (MTCs) for each consignment shall be furnished by the Contractor. The contractor shall ensure that:

   - All materials are procured directly from the manufacturer/authorised 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.
   - Delivery of material shall be taken up only on approval of the Engineer-in-Charge (EIC).
   - Institute shall reserve the right to waive inspection in lieu of a suitable test certificate, at its discretion.
   - Similarly, for fabricated equipment/items, the contractor shall first submit detailed dimensional drawings/ shop drawings for approval before fabrication is taken up in the factory. Stage inspections at the factory will be made to ensure proper use of materials, workmanship and quality control.
   - All parts of equipment shall be of such design, size and material so as to function satisfactorily under all rated conditions of loading and operation. All components of the equipment shall have adequate factors of safety. Materials/components which are not conforming to standards laid down by Bureau of Indian Standards (BIS) shall be got approved from the department before use on the work.

- The entire work of fabrication, assembly and installation shall conform to sound engineering practice and on the basis of "fail safe" design. The mechanical parts subject to wear and tear shall be of easily replaceable type.
- The construction shall be such as to facilitate ease of operation, inspection, maintenance and repairs. All apparatus shall also be designed to ensure satisfactory operation under working conditions as specified.

6.5 Workmanship

1. Good workmanship is an essential requirement to be complied with. The contractor shall take precaution to ensure quality of workmanship as well as the progress of the work. He shall regulate the labour accordingly. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
2. He shall engage suitably skilled/licensed workmen for execution of electrical work supervised by supervisors/Engineer of appropriate qualification and experience to ensure proper execution of work.

6.6 Drawings (as applicable)

1. The E&M Drawings issued with tenders, are schematic only and indicate arrangement of various systems and the extent of work covered in the contract. These Drawings indicate the points of supply and of termination of services and broadly suggest the routes to be followed. Under no circumstances shall dimensions be scaled from these Drawings. The architectural / interiors drawings and details shall be examined for exact location of equipment, electrical points & fixtures.
2. The contractor shall follow the tender drawings in preparation of his shop drawings, and for subsequent installation work. He shall check the drawings of other trades to verify spaces in which his work will be installed.
3. Maximum headroom and space conditions shall be maintained at all points. Where headroom appears inadequate, the contractor shall notify the Engineer-in-charge before proceeding with the installation. In case installation is carried out without notifying, the work shall be rejected and contractor shall rectify the same at his own cost.
4. The contractor shall examine all architectural, structural, plumbing, HVAC, Electrical and other services drawings and check the as-built works before starting the work and report to the Engineer-in-charge any discrepancies and obtain clarification. Any changes found essential to coordinate installation of his work with other services and trades, shall be made with prior approval of the Engineer-in-charge.

6.7 Shop Drawings (as applicable)

1. All the shop drawings shall be prepared on a computer using AutoCAD software based on Architectural Drawings, site measurements, and the Interior Designer's Drawings. After award of the contract or as specified in Additional

Conditions of relevant item of work, the contractor shall furnish, for the approval of the EIC, two or more sets of detailed shop drawings of all equipment and materials including layouts for all conduit layouts, distribution panels, switch boards, cabinets, special pull boxes, cable trays and any other requirement to be fabricated or purchased by the contractor. Shop drawings shall also be submitted in soft format. Soft copies of the drawings shall be submitted in PDF as well as in editable format.

2. These shop drawings shall contain all information required to complete the Project as per specifications and as required by the Engineer-in-charge. These Drawings shall contain details of construction, size, arrangement, operating clearances, performance characteristics and capacity of all items of equipment, also the details of all related items of work by other contractors. Each shop drawing shall contain tabulation of all measurable items of equipment/materials/ works and progressive cumulative totals from other related drawings to arrive at a variation-in-quantity statement at the completion of all shop drawings.
3. Each item of equipment/material proposed shall be a standard catalogue product of an established manufacturer strictly from the approved makes list.
4. When the EIC makes any amendments in the above drawings, the contractor shall supply four fresh sets of drawings with the amendments duly incorporated along with check print, for approval. The contractor shall submit further six or as many sets as required by EIC of shop drawings to the Engineer-in-charge for the exclusive use by the Engineer-in-charge and all other agencies. No material or equipment may be delivered or installed at the job site until the contractor has in his possession, the approved shop drawing for the particular material/equipment/installation.
5. Shop drawings shall be submitted for approval sufficiently in advance of planned delivery and installation of any material to allow the Engineer-in-charge ample time for scrutiny. No claims for extension of time shall be entertained because of any delay in the work due to his failure to produce shop drawings at the right time, in accordance with the approved programme.
6. Manufacturers drawings, catalogues, pamphlets and other documents submitted for approval shall be in six sets. Each item in each set shall be properly labelled, indicating the specific services for which material or equipment is to be used, giving reference to the governing section and clause number and clearly identifying in ink the items and the operating characteristics. Data of general nature shall not be accepted.
7. Approval of shop drawings shall not be considered as a guarantee of measurements or of building dimensions. Where drawings are approved, said approval does not mean that the drawings supersede the contract requirements, nor does it in any way relieve the contractor of the responsibility or requirement to furnish material and perform work as required by the contract.
8. Where the contractor proposes to use an item or equipment, other than that specified or detailed on the drawings, which requires any redesign of the structure, partitions, foundation, wiring or any other part of the mechanical,

electrical or architectural layouts; all such re-design, and all new drawings and detailing required therefore, shall be prepared by the contractor at his own expense and gotten approved by the EIC.

6.8 Completion and As-Built Drawings (as applicable)

1. All installations shall be tested for performance and safety before acceptance.
2. The contractor shall submit complete as-built service drawings before the final bill.
3. Upon completion of the work and before issuance of certificate of virtual completion the contractor shall submit to three sets of drawings in progressive manner for individual systems drawn at approved scale indicating the complete wiring system as installed. Drawings shall be prepared on AUTO-CAD (latest version). Along with the hard copies, the contractor shall submit copies of all drawings on CD and one set of all drawings on RTF shall also be submitted. These drawings must provide include –
   b) Substation equipment layout & all power distribution panel layout.
   c) Single line power distribution diagram including control wiring.
   d) Cable Trays with number and size of cables installed.
   e) Run and size of conduits, inspection, junction and pull boxes.
   f) Raceways and Junction Boxes.
   g) Number and size of conductors in each conduit with phase identification.
   h) Location and rating of sockets and switches controlling the lighting and power outlets.
   i) Location and details of distribution boards/panels, mains, switches along with phase balancing details.
   j) A complete wiring diagram as installed and single line diagrams showing all connections in the complete electrical system.
   k) Location of all earthing stations, route and size of all earthing conductors manhole.
   l) Layout and particulars of all HT & LT cables.
   m) Instruction, maintenance and operation manuals including maintenance schedule for all equipment. Testing & commissioning reports of all electrical equipment and any other drawing/document as required.
   n) And any other drawing/document as required.
4. **Completion Certificate**: On completion of the electrical installation a certificate shall be furnished by the Contractor countersigned by the licensed supervisor, under whose direct supervision the installation was carried out. This certificate shall be in the prescribed form as required by the local, state/central govt./ municipal / fire authorities concerned or as per directions of EIC.

6.9 Operating Instructions & Maintenance Manual:

Upon completion and commissioning of the Electrical & Mechanical system, the contractor shall submit a draft copy of comprehensive operating instructions, maintenance schedule and log sheets for all systems and equipment included in this

contract. This shall be supplementary to the manufacturer's operating and maintenance manuals. Upon approval of the draft, the contractor shall submit four (4) complete bound sets of typewritten / Printed operating instructions and maintenance manuals; These manuals shall also include the basis of design, detailed technical data for each piece of equipment as installed, spare parts manual and recommended spares for 4 year period of maintenance of each equipment.

6.10 On Site Training:

Upon completion of all work and all tests, the Contractor shall furnish necessary operators, labour and helpers for operating the entire installation, to enable the EIC's staff to get acquainted with the operation of the system.

During trail run period of 15 days, the contractor shall train the Institute's personnel in the operation, adjustment and maintenance of all equipment installed.

6.11 Demonstration to Client:

At completion, equipment subject to manual operation shall be operated at least five times in the presence of the Engineer In-charge/ his representative to demonstrate satisfactory operation.

6.12 Indemnity

The Contractor shall be solely responsible for and shall indemnify and keep indemnified the Institute, its officers, employees and representatives from and against all actions, claims, demands, losses, damages, costs, charges and expenses of any nature whatsoever arising out of or in connection with:

a) death of or bodily injury to any person, including workmen or third parties;
b) loss of or damage to any property, whether belonging to the Institute or to third parties;
c) any accident, failure, defect or deficiency in execution of the work;
d) non-compliance with any statutory provisions, rules or regulations in force.

This indemnity shall apply irrespective of whether such claims arise during the execution of the work or after its completion and shall not be limited by any insurance taken by the Contractor or by any payments made to the Contractor under the contract.

6.13 Water, Electricity and Temporary Works

1. The contractor shall make his own arrangements for temporary water and power connections and shall bear all charges.
2. Water/Power required for installation or testing various electrical installations, fire pumps, wet riser / firefighting equipment, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing treatment etc. shall be arranged by the contractor at his own cost.
3. In the case the Institute provides water and power, amount worked out as per actual consumption at the prevailing Government rates shall be recovered from the running payments.

4. The contractor shall provide barricading, labour accommodation, sanitation facilities, stores, sheds and all temporary works without extra cost.

6.14 Protection of Works and Existing Services

1. The contractor shall protect existing buildings, services, drains, cables, pipelines and structures.
2. Any damage caused shall be made good immediately at the contractor's cost.
3. The contractor shall protect the works executed till final handing over.
4. The work shall be executed in a manner that does not interfere with, affect, or disturb other ongoing works being performed by other agencies, if applicable.
5. Any damage caused by the contractor to existing works, or to works carried out by other agencies, shall be repaired or rectified by the contractor at their own expense.
6. **Care of the building and other structures/installations**

   Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building and its surrounding roads, pavements, horticulture work, boundary wall, sewer and water lines, etc. He shall be responsible for repairing all damage and restoring it to its original finish at his cost. He shall also, at his cost, remove all unwanted and waste materials arising from the installation from the site. In case of failure to do so, damages to existing infrastructure/equipment caused by carelessness/poor quality work shall be compensated by the contractor to IIT Goa.
7. **Structural Alterations to Buildings:** No structural member in the building shall be damaged/altered, without prior approval from the competent authority through the Engineer-In-charge. Structural provisions like openings, cut-outs, if any, provided by the department for the work, shall be used. Where these required modifications or fresh provisions are required to be made, such contingent works shall be carried out by the contract at his cost. All such openings in floors provided by the department shall be closed by the contractor after installing the cables/conduits/rising mains/GI&MS Pipe, etc., as the case may be, by any suitable means as approved by the Engineer-In-Charge without any extra payment.
8. Any services affected by the works must be temporarily supported by the Contractor, who must also take all measures reasonably required by the various bodies to protect their services and property during the progress of works. It shall be deemed to be part of the contract, and no extra payment shall be made to the Contractor for the same. Shifting/realignment of public utilities should be done without disturbing the existing ones. New service lines should be laid and connected before dismantling the existing ones which shall be paid separately.
9. **Addition to an installation:** Any addition, temporary or permanent, to the existing electrical installation shall not be made without a properly worked-out scheme/design by a qualified Engineer and without the approval of the Engineer-

in-Charge, to ensure that such addition does not lead to overloading or safety violations of the existing system.

6.15 Progress Programme and Reporting

1. The contractor shall submit a detailed construction programme within the time specified in Schedule-F.
2. Monthly progress reports with physical, financial progress, manpower, machinery and photographs shall be submitted in the prescribed format.

6.16 Specialised Works and Agencies

1. In general, all works related to Electrical, fire-fighting, HVAC, Lifts, Ante termite treatment, waterproofing works, expansion joints, furniture, Audio-Video systems, Networking/ELV are treated as specialised works which shall be executed through approved specialised agencies meeting the eligibility criteria specified at Part-II of the NIT. Value of the specific component of the specialised item of work shall be considered for evaluation of the credentials of the agency proposed by the main contractor for approval. If the main contractor fulfils the eligibility requirements to execute any of the specialised works, he shall obtain the approval of the EIC before start of the execution of such works.
2. The main contractor must enter into a Memorandum of Understanding (MOU) with any associated Specialised agencies. The format of the MoU is placed at ***Appendix-6.*** Copies of such MOUs shall be submitted to the Engineer in charge of each relevant component as well as to the Engineer in charge of the major component.
3. 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 the Engineer-in-Charge of the relevant specialised component. The new agency/agencies shall also have to satisfy the laid-down eligibility criteria.
4. In case the 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.
5. The contractor should hand over the warranty of all the specialised items and non-specialised items, if any such warranty is provided by the manufacturer, which have been installed in the constructed building, to the Institute.
6. The main contractor shall remain fully responsible for the performance of the specialised agencies.

6.17 Manufacturer's Authorisation Form *(if applicable)*

The bidder shall submit valid Manufacturer Authorisation Form (MAF) as per ***Form-H not later than 6 months prior to the last date of bid submission***

6.18 Engineers-in-Charge (EIC): Operating Procedures

This section is applicable to Composite Works Only

1. The Engineer in charge of the major component of the work shall look after overall execution, coordination, supervision, and contract management of the project.
2. Executive Engineer (Civil), IWD, IIT Goa shall act as Engineer-in-Charge of components which includes Civil, Horticulture, Road & Civil infra works.
3. Executive Engineer (Electrical), IWD, IIT Goa shall act as Engineer-in-Charge of components pertaining to all Electro-Mechanical works.
4. Other than minor component, all other issues shall be dealt by Engineer-in-charge of Major component.
5. Running Bill for the both major and minor components shall be made by Engineer-in-Charge of major component to the main contractor.
6. Running payment for the major component shall be made by Engineer-in-Charge 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 Engineer-in-Charge of major and minor components.
7. Final bill of whole work shall be finalized and paid by the Engineer-in-Charge of major component. Engineer-in-Charge of minor components 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.
8. In case the main contractor intends to change any agency/agencies during the operation of the contract, he shall obtain prior approval of respective Engineer-in-Charge of the agreement. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-Charge of respective major/minor component 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.
9. Levy of Compensation under Clause 2, if any, and rescheduling of milestones as stipulated under clause 5, will be decided by Superintending Engineer on receipt of required information in this regard from Engineer-in-Charge of major discipline as well as concerned Engineer-in-Charge of minor discipline.
10. The composite work is treated as complete when all the components of the work are complete. The Completion Certificate of the composite work is recorded by Engineer-in-charge of major component after record of completion certificate by the Engineer-in-Charge of minor components.
11. Other than technical & contractual issues pertaining to minor component (i.e., E& M works) for all other purposes of contractual agreement like Arbitration case/Court case, if any, such shall be handled with main contractor by the EIC of the major component with the support of EIC of the minor component.

PART – VII : ADDITIONAL CONDITIONS OF CONTRACT

7.1 Applicable for Works costing more than Rs 50 Lakh

Reports to be submitted by Contractor

(i) The contractor shall submit monthly progress report of the work in a computerized form. The progress report shall contain the following, apart from whatever else may be required as specified: i) Project information, giving the broad features of the contract.

(ii) Introduction, giving a brief scope of the work under the contract, and the broad structural or other details.

(iii) Construction schedule of the various components of the work through a bar chart for the next 2 quarters (or as may be specified), showing the milestones, targeted tasks and up to date progress.

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

(v) Plant and machinery statement, indicating those deployed in the work, and their working along with their designations.

(vi) Manpower statement, indicating individually the names of all the staff deployed in the work, along with their designations.

(vii) Financial statement, indicating the broad details of all the running account payments received up to date, such as gross value of work done, advances taken, recoveries effected, amounts withheld, net payments, details of cheque payments received, etc.

(viii) A statement showing the extra and substituted items submitted by the contractor, and the payment received against them, items pending for sanction/decision by the Department, broad details of the bank guarantees, indicating clearly their validity periods, broad details of the insurance policies taken by the con- tractor, if any, the advances received and adjusted from the department, etc.

(ix) Progress photographs, in colour, of the various items/components of the work done up to date, to indicate visually the actual progress of the work.

(x) Quality assurance and quality control tests conducted during the month, with the results thereof.

PROGRESS REPORT

The progress report submitted by the contractor has to be checked and certified by the Junior Engineer or Assistant Engineer, and has to be reviewed by the Executive Engineer and the Superintending Engineer, over their dated signatures.

A. Physical.

Name of Item	Quantity as per Agreement	Quantity extended during the month	Total up to date quantity executed	Anticipated balance quantity

B. Financial

Total Tendered amount	Work done during the month	Total amount of work done up to Date	Anticipated amount of balance work

2. The contractor shall submit the progress report to the Engineer-in-Charge in both hard and soft copies by 10th day of every month as per the above proforma along with photographs of the work done during that month. The contractor shall be charged at Rs. 2500/-(Rupees Two thousand five hundred only) in the event of non-receipt of the monthly progress report on the due date (i.e., on the 10th day of every month) in the manner prescribed above. In case the 10th day happens to be a closed holiday, then the progress report will be submitted on the next working day.

7.2 Additional Conditions Specific to this Work

1 These special conditions shall be read in conjunction with general conditions of contract and amendments / corrections thereto, Additional Conditions Specific to this Work for Civil.

2 All items of the work shall follow specifications as mentioned in the schedule of quantities and CPWD General Specifications for Electrical Works Part-I Internal & Part-II External 2023, Part-IV Substation 2013, CPWD General Specifications for Civils Works Vol I & II 2019, IE rules, Indian Standards Code, as per Rules of NBC & all the amendment issued upto date and as per directions of Engineer-in-Charge.

3 The contractor must study carefully all the specifications/schedule of work / drawings / additional specifications and site parameters and quote firm rates after accounting all works. No extra claim on any account shall be paid/ entertained other than the agreement/quoted rates.

4 In addition to supply, installation, testing and commissioning of all equipments as per schedule of quantities, the following work shall be deemed to be included within the scope of work, to be executed by the contractor.

- All minor building works, such as equipments foundation if required cutting and making good holes, grouting of channels belts as required. Cutting and making good damages etc.
- Provision of supports / clamps for equipments, cables etc. wherever required.
- Small wiring, inter-connection etc. inclusive of all materials and accessories, necessary to comply with the regulations as well as proper and trouble free operation of the equipment.
- Closing of the cable entry points in sub-station against seepage of water, rodents etc.
- Tools and tackles required for handling and installation.
- Necessary testing equipments for commissioning.
- Watch and Ward of materials and/or installation and equipments till their handing over to the department.

5 The work shall be carried out in accordance with the drawings approved by the Engineer-in-charge. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work and satisfy himself that the information available is complete and unambiguous. The discrepancy, if any, shall be brought to the notice of Engineer-in-charge before execution of work. The contractor himself shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information.

6 All tools, plant and machinery provided by the contractor shall, when brought at the site, be deemed to be exclusively intended for the construction and completion of this work and the contractor shall not remove the same or any part thereof (save for

the purpose of moving it from one part of the site to another) without the consent of the Engineer-in-charge.

7 SITE CONDITIONS:

Location	:	IIT Goa at GEC Campus Farmagudi Ponda Goa
Altitude	:	~80 meters above sea level (approx.)

Ambient Temperature

Maximum	:	~36 deg. C
Minimum	:	~18 deg. C
Design ambient temp	:	~40 deg. C

Relative humidity (average over a month) = 75% to 95% (high coastal humidity)

Note: All equipment shall give required output under the above conditions. The equipments exposed to atmosphere shall be suitable for humid, coastal, and heavy monsoon conditions with anti-corrosion protection.

8 INSPECTION OF SITE AND COLLECTION OF DATA

The contractor shall be deemed to have examined the tender documents, detailed specification, data etc. and to have visited the site or ascertained all relevant details for offering suitable equipments/ installation.

9 INTER CHANGEABILITY

All similar equipments, materials, removable parts of similar equipments etc. shall be inter-changeable with each other.

10 INTERFERENCE WITH COMMUNICATION EQUIPMENT

Suppressors or other protection devices shall be provided, if required as per schedule of quantities, wherever the sub-station installation is likely to interfere during the operation with any other electric or electronic equipment.

11 EXTENT OF WORK

The scope of work shall consist of cost of all materials, labour i/c supervision, installation, calibration, adjustments as required for commissioning of the sub-station. The term complete installation shall mean, not only, major item of the plant and the equipments covered by these specifications, but also, incidental sundry components necessary for complete execution and satisfactory performance of installation with all labour charges, whether or not specifically mentioned in the tender documents, which shall be provided by the contractor at no extra cost.

The tendered rates shall be comprehensive and all-inclusive, covering:

- Design, engineering, supply, installation, testing, and commissioning
- Labour, supervision, tools & tackles, transport, and insurance
- All taxes, duties, contingencies, wastage, and incidental expenses
- Scaffolding and all temporary works
- Maintenance and rectification during the defect liability period

All items shall be considered complete in all respects, ensuring a fully functional and operational substation system till the completion of defect liability period.

12 COMPLETENESS OF TENDER

All fittings, unit assemblies accessories, hardware foundation bolts, terminals blocks for connections, cable glands and miscellaneous materials and accessories of items of work which are useful and necessary for efficient assembly and working of the equipment shall be deemed to have been included within the scope of the work in the tender and within the overall details for complete item whether they have been specifically mentioned or not.

13 DATA MANUAL & DRAWINGS TO BE SUBMITTED FOR APPROVAL:

After Award of Work

The contractor shall submit the following drawing within a fortnight of the commencement of the work or as specified in tender document, which shall prevail, for approval by the department. All drawings shall be Good for Construction.

(i) General arrangement, schematic diagram or location drawing of the equipment complete with dimensions and clearances, as per IS/IEC norms.
(ii) General arrangement drawing of H.V. Panel, Transformers, M.V. panels, Earthing, Cable route etc. including details of grouting of channels/ bolts of various equipments.
(iii) Structural drawing of Civil Prefabricated room duly vetted by structural engineer with dimensions and clearances, as per IS norms.
(iv) All panels' schematics & wiring diagram including control wiring.
(v) Bar chart indicating general programme for design, supply, installation, testing, commissioning, and handing over.
(vi) Any other drawing or data that may be necessary for the job.

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

14 TEST CERTIFICATE

The Contractor shall submit following test certificates on supply of the materials at site.

(i) Manufacturer's test certificates (MTC) for Transformers, HT & LT equipments, panels, cables and other switchgears.
(ii) A certificate that the LT panel has undergone 7-tank process shall be submitted.
(iii) Relays, capacitors and bus trunking.
(iv) CPRI test certificate for PCC (similar panel/design).
(v) Copies of all documents for routine, acceptance and type test certificates of the equipment carried out at the manufacturers premise shall be furnished to the department alongwith supply of the equipment.

15 INSPECTION AND TESTING:.

(i) IIT Goa reserves the right to carry out inspection and testing at Manufacturer's works for any equipment / item prescribed in this contract at no extra payment to the contractor.

(ii) The contractor will be required to furnish such facilities as will be necessary for inspection of the equipment before dispatch at the manufacturer's works (Factory Acceptance Test) and also for witnessing such tests, at the works, if so required by the department. The contractor shall furnish information for this purpose and will also give sufficient notice regarding the dates proposed for such test to Inspection.

(iii) All necessary pre-commissioning tests for the equipment installed by the contractor in the substation including protective devices and switchgears shall be conducted before offering the substation for inspection by authorized electrical inspector.

(iv) The substation shall be commissioned only after successful all applicable clearances by electrical inspector & Goa Electricity Department.

16 Coordination with Other Departments

The contractor shall coordinate his work and cooperate with other agencies by exchange of all technical information like details of foundation if required, weight, over all dimensions, clearance and other technical data required for successful and proper completion of his portion of the work in relation to the work of others without any reservation. No remuneration should be claimed from the department for such technical cooperation. Care shall be taken not to damage the water proofing done in the case of substations constructed below ground level. If any unreasonable hindrance is caused to other agencies and any completed portion of the works has to be dismantled and redone for want of the cooperation and coordination by the contractor during the course of work, such expenditure incurred will be recovered from the contractor during the course of work, if the restoration work to the original condition of specification of the dismantled portion of the work was not under taken by the contractor.

The work shall be carried out with minimal disturbance during shifting activities and shutdowns, taken in consultation with IIT Goa. Since the Institute is operational, the contractor shall provide prior intimation for any shutdown required and ensure completion of the work within the allotted time. No repetitive or additional shutdowns shall be permitted. The contractor shall also coordinate with GED for all required shutdowns and ensure that the planned work is completed within the approved shutdown period.

17 DATE OF COMPLETION: -

The date of completion of equipment shall be the date on which the installation is cleared by the Electrical inspector. The above date shall be the date of completion of work only for the purpose of settlement of bills/payments. However, the guarantee/ DLP period shall start from the date of taking over of overall project.

Nothing extra shall be paid on this account. The Security Deposit shall be released after the successful completion of guarantee/DLP period.

18 DATE OF ACCEPTANCE

The contractor shall operate the sub-station for a period of fifteen days after it is energized. The date of taking over of the sub-station shall be reckoned after its trouble free operation during the running in period.

Nothing extra shall be paid on this account. The Security Deposit shall be released after the successful completion of guarantee/DLP period.

19 COMPLETION DRAWINGS: -

The firm shall supply five sets of completion drawings/documents after completion of the work as detailed below.

(i) Layout plan of equipment in substation with clearances.
(ii) General arrangement drawing for all equipment.
(iii) Schematic diagram of substation equipment.
(iv) Control wiring diagram.
(v) Operation and maintenance manuals for all equipment.
(vi) Layout of earthing
(vii) Diagram showing the details of arrangement provided for SCADA connectivity.

20 Defect Liability Period

All materials, equipment, components, and associated works in this contract shall be guaranteed for a period of 12 (twelve) months from the date of taking over the installation by the Department. The guarantee shall cover any unsatisfactory performance, breakdown, or defect arising from faulty design, poor workmanship, or defective materials. Any material, equipment, component, or part thereof found defective during the Defect Liability Period shall be repaired or replaced by the Contractor free of cost, to the satisfaction of the Engineer-in-Charge. If the Contractor fails to attend to such defects within a reasonable time or undue delay is being caused by the contractor in doing this, the Department may carry out the necessary repairs/replacements at the risk and cost of the Contractor. The decision of the Engineer-in-Charge in this regard shall be final and binding on the Contractor. The warranty/guarantee shall cover the following:-

(a) Quality, strength and performance of materials used.
(b) Safe mechanical and electrical stress on all parts under all specified conditions of operation.
(c) Satisfactory operation during the maintenance period.
(d) Performance figures and other particulars as specified by the tenderer under schedule of guaranteed technical particulars.

21 MAINTENANCE DURING DEFECTS LIABILITY PERIOD

The Contractor shall be fully responsible for rectification of all defects observed during the Defect Liability / Warranty Period. Any defect or failure attributable to poor quality materials, defective workmanship, or improper installation shall be rectified by the Contractor at his own cost. In case of failure or delay by the Contractor, the Institute/Department shall be at liberty to rectify the defects at the risk and cost of the Contractor**.** The Contractor shall also carry out regular inspections and testing during the Defect Liability Period and promptly attend to any defects arising during this period.

8.1 **Complaints**

The Contractor shall establish a Call Centre / Service Centre / Escalation Matrix for registering complaints during the Defect Liability Period. All complaints related to operation of the system under this contract shall be attended to within 24 hours of receipt. Immediate corrective action shall be taken to restore normal functioning. Sufficient trained and experienced staff shall be deployed during the one-year guarantee period from the date of handing over the installation.

8.2 **Repairs**

All equipment requiring repair shall be attended to immediately. As the Electrical & Mechanical Maintenance period runs concurrently with the Defect Liability Period, all replacement parts, consumables, and labour for associated works shall be provided promptly and free of charge to the Institute..

8.3 **Preventive Maintenance**

Routine as well as preventive maintenance shall be carried out for one year from the date of taking over the installation, in accordance with the manufacturer's recommendations, on a quarterly basis or more frequently if required. The Contractor shall submit the following along with the handover documents:

- Preventive Maintenance Activity Plan
- Call Centre / Service Centre / Escalation Matrix details
- Contact details of responsible service personnel (Single Point of Contact)

22 UPTIME GUARANTEE

The contractor shall guarantee for the installed system an uptime of 98%. In case of shortfall in any month during the defects liability period, the Defects Liability period shall get extended by a month for every month having shortfall.

23 TERMS OF PAYMENT:

The following percentage of contract rates for the various items included in the contract shall be payable against the stage of work shown herein.

- 80% after initial inspection and delivery at site in good condition on pro-rata basis.
- 10% after completion of installation in all respects.
- Balance 10% will be paid after testing, commissioning & handing over to the department for beneficial use.

Payment shall be made against submission of a valid GST invoice, duly supported by all requisite documents, including but not limited to measurement sheets, test reports, purchase invoices, and guarantee/warranty certificates.

No advance payment shall be made. Income tax and all other statutory deductions shall be effected as applicable.

The Contractor shall be required to submit the OEM-issued Guarantee/Warranty Certificate, failing which the RA & Final bill shall not be payable.

The Institute shall deduct applicable TDS, GST, labour cess, and any other statutory deductions from the RA/Final bills, as per prevailing Government of India norms.

PART – VIII : CONTRACT AGREEMENT

Contract Agreement

THIS AGREEMENT made **the ..... day of ....., 2026**, between Indian Institute of Technology Goa, at Goa College of Engineering Campus, Farmagudi, Ponda, 403401, Goa State , India (hereinafter "the Employer/ the Institute, of the one part, and M/s....., India (hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as ..... should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein, for a value of INR ..... (Rupees .....) as considerations from IIT Goa as per the Institute's/ Govt. of India norms.

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement.

a. The Contract Agreement

b. The Letter of Acceptance

c. Corrigendum to Letter of Acceptance (if any)

d. Minutes of Negotiation

e. Letter of Tender

f. The Bid comprising of:

- Notice Inviting Tender (NIT)
- General Conditions of Contract
- Special Conditions of Contract
- Priced Bill of Quantities: Civil Works
- Priced Bill of Quantities: Electro Mechanical Works
- Particular Specifications: Civil Works
- Particular Specifications: Electro Mechanical Works
- Technical Data Sheet
- Tender Drawings (List plus DVD).
- Appendices to Particular Specifications

g. Pre-bid meeting clarifications, including corrigenda/ addenda.

3. In consideration of the payments to be made by the Employer to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity with all the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of INDIA on the day, month and year specified above.

Signed by: Signed by:

for and on behalf of the

The Director,

Indian Institute of Technology Goa,

at Goa College of Engineering Campus,
Farmagudi, Ponda, 403401, Goa State,
India

Witness: Witness:

Forms and Appendices

Checklist of documents to be submitted along with Technical Bid

Sl. No.	Doc Ref	Description of the Document	Applicability	Enclosed Yes/No
1	Registration certificate	Copy of Enlistment Order in appropriate Class and Category	Applicable	
2	Earnest Money Deposit	Proof of EMD payment	Applicable	
3	PAN Card	Copy of PAN Card issued by the Income Tax Department	Applicable	
4	GST Registration Certificate	GST Registration Certificate, if already obtained by the Bidder. If the Bidder has not obtained GST registration as applicable, then he shall scan and upload following undertaking along with bid documents. *"If work is awarded to me, I/We shall obtain GST registration certificate as applicable within one month from the date of receipt of award letter or before release of any payment by IIT Goa, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by IIT Goa or GST Department in this regard"* **(Form A)**	Applicable	
5	Average Annual Turnover and Net Worth	Scanned copy of CA Certificate with UDIN (**Form-B**)	Applicable	
6	Similar Work experience Details of Works completed during last 7 years *(Detailed statements to be enclosed) The intending bidders has to submit the Similar work experience certificate furnishing with all details of the format provided at* ***Form-C***	Not less than 40% of estimated cost (Three similar works) **OR**	Applicable	
		Not less than 60% of estimated cost (Two similar works) **OR**		
		Not less than 80% of estimated cost (One Similar work)		

7	The bidder should not have been blacklisted or penalized.	**Form-D**	Applicable	
8	Valid Electrical License	Uploading of valid electrical license of eligible class issued by state licensing authority of Goa Or Uploading of following undertaking if not having electrical license of eligible class. *"If work is awarded to me, I/We will either obtain valid electrical license before the of execution of electrical work or associate eligible electrical agency having a valid electrical license of eligible class issued by state licensing authority of Goa"* *However, bidder should upload valid electrical license of eligible class of any other state.*	Applicable	
9	Specialised Works (**Form F**)	Undertaking of association of agencies for specialized items of work: *"If work is awarded to me, I/we shall associate agencies (having desired credentials as mentioned in NIT) for specialized items of work, within one month from the date of receipt of award letter or before release of any payment by IIT Goa, whichever is earlier, failing which I/we shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by IIT Goa."*	Not Applicable	
10	Declaration of Local Content	**Form -G**	Applicable	
11	Manufacturer's Authorisation Form	**Form -H**	Not Applicable	
12	Letter of Transmittal	**Appendix-1**	Applicable	

Note:

1. If any required document is not scanned and uploaded while submitting the bid, the bid submitted shall become invalid and will not be considered for e-Tendering process and the bid shall be summarily rejected.
2. All modifications/addenda/corrigenda issued regarding this bidding process shall be uploaded on the website only and shall not be published in any newspaper.

Form: A :: Undertaking for GST Registration Certificate

To

The Executive Engineer (Electrical)
IWD, IIT Goa.

Subject: Name of Work: ……##……

to be filled by the Contractor

Dear Sir,

Having examined the details given in the bid document for the above work, I/we hereby submit that we are not having GST registration in the state of Goa hence we hereby undertake the following:

"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 IIT Goa, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by IIT Goa or GST Department in this regard."

Signature of Bidder(s) or

An authorized Officer of the firm with stamp & seal

FORM – B:: Financial Capacity

TURNOVER & NET WORTH

I. Name of Firm : .....

II. GST No of Firm : .....

Annual Turnover for the Last Three (3) Financial Years		
Financial Year	**Total Turnover Amount**	**Turnover from Construction activities**
Average Annual Turnover		

Net Worth for the Last Three (3) Financial Years		
Financial Year	**Net worth**	**Remarks**

Signature of Chartered Accountant .....
Name of Chartered Accountant .....
Membership No. of ICAI .....
UDIN: .....
Date and Seal .....

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

FORM – C :: Details of Eligible Works

DETAILS OF ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DAY OF SUBMISSION OF TENDERS

S. No.	Name of work/ project and location	Organization	Final Completion Cost of work	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Litigation / arbitration cases pending/ in progress with details*	Name and address/ telephone number of officer to whom reference may be made	Whether the work was done on back to back basis Yes/ No
1	2	3	4	5	6	7	8	9	10

* Indicate gross amount claimed and amount awarded by the Arbitration Tribunal.

Signature of Bidder(s)

FORM-D :: Undertaking for Non-Blacklisting

(To be submitted on a non-judicial stamp paper of minimum value of Rs 100/-)

I/we hereby certify that the ..... firm has not been ever blacklisted or penalized or not have any involvement in illegal activities or financial misappropriation/frauds etc. by any Central/ State/ Public Sector Undertaking /Autonomous bodies /Institute of Govt. of India on any account.

I/we undertake and confirm that eligible work(s) has/ have not been got executed through another contractor on back-to-back basis. Further that, if such violation comes to the notice of Institute then. I/we shall be liable for appropriate panel action as decided by Institute i/c debarred for work in institute, in future forever.

Also, if such a violation comes to the notice of Institute before date of start of work, the Engineer-in- charge shall be free to forfeit the entire amount of Earnest money deposited/Performance Guarantee.

I also certify that the information given in the bid is true and correct in all aspects and if in any case at a later date it is found that any detail/s provided are false and incorrect, any contract given to the concern firm or participation may be summarily terminated at any stage, the firm will be blacklisted and Institute may imposed any action as per rules.

Date: Name :

Place: Business Address :

Signature of Bidder with Seal of the Firm:

Form: E :: Undertaking for Valid Electrical License

<on bidder letter head>

To

The Executive Engineer (Electrical)
IWD, IIT Goa.

Subject: Name of Work: ……##……

to be filled by the Contractor

Dear Sir,

Having examined the details given in the bid document, I/We hereby submit that we are not having valid electrical license issued by state licensing authority of Goa as applicable, hence we hereby undertake the following:-

"I/We will either obtain valid electrical license before the execution of electrical work or associate eligible electrical agency having a valid electrical license of eligible class issued by state licensing authority of Goa"

Signature of bidder or

an authorized person of the firm with stamp.

Form: F :: Undertaking for Association of Specialized Agencies

To

The Executive Engineer (Electrical)
IWD, IIT Goa.

Subject: Name of Work: ……##……

to be filled by the Contractor

Dear Sir,

Having examined the details given in the bid document, I/We hereby submit that:

"If work is awarded to me, I/we shall associate agencies (having desired credentials as mentioned in NIT) for specialized items of work, within one month from the date of receipt of award letter or as stipulated by the Engineer-in-Charge or before release of any payment by IIT Goa, whichever is earlier, failing which I/we shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by IIT Goa."

Signature of bidder or

an authorized person of the firm with stamp.

Form: G :: Declaration of Local Content

(To be given on company letterhead - For tenders value below Rs.10 crores)
(To be given by Statutory Auditor/Cost Auditor/Cost Accountant/CA for tender value above Rs.10 crores)

To
The Executive Engineer (Electrical)
Indian Institute of Technology Goa,
At GEC Campus, Farmagudi, Ponda - Goa

Sub: Declaration of Local content Tender Reference No:_____

Name of Tender: - _____ Country of Origin of Goods being offered: _____

We hereby declare that an item offered has % local content.
_____

"Local Content" means the amount of value added in India which shall, be the total value of the item being offered minus the value of the imported content in the item (including all customs duties) as a proportion of the total value, in percent.

We understand that, as per Office Memorandum dated 04/03/2021 issued by Ministry of Commerce and Industry, services such as transportation, insurance, installation, commissioning, training and after sales support like CAMC/CMC etc. are not considered as local value addition.

"False declaration will be in breach of Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

Yours faithfully,

(Signature of the Bidder, with date and seal)

FORM-H:: Manufacturer's Authorisation Form

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer ***not later than 6 months prior to the last date of bid submission****.]*

Date : [insert date (as day, month, and year) of bid submission]

Tender No. : [insert number from invitation for bids]

To : [insert complete name and address of purchaser]

WHEREAS We [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer's factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with clauses & the terms and conditions of the bid document, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Duly authorized to sign this Authorization on behalf of: [insert complete name of Bidder]

Dated on _____ day of _____, _____ [insert date of signing]

Appendix-1 :: Letter of Transmittal

From: M/s. ……

To

The Executive Engineer (Electrical)
IIT Goa

Subject: Submission of bids for the work of …….

Sir,
Having examined the details given in the bid document for the above work, I/we hereby submit the relevant Information.

1. I/We hereby certify that all the statement made and information supplied in Technical cum eligibility bid documents accompanying statement are true and correct.
2. I/We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/We also authorize Engineer-in-Charge to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/We submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following eligible similar works:

Name of work	Certificate from

Certificate: It is certified that the information given in the enclosed Technical cum eligibility bid are correct. It is also certified that I / We shall be liable to be debarred, disqualified / cancellation of enlistment in case any information furnished by me / us is found to be incorrect.

Enclosures: Seal of bidder

Date of submission:

Signature(s) of Bidder(s):

Appendix-2 :: Format for Bank Guarantee

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

On non-judicial stamp paper of minimum Rs.100
(Guarantee offered by Bank to IIT Goa in connection with the execution of contracts)

1. Whereas the Executive Engineer ……**…… Institute Works Department, IIT Goa, on behalf of the Board of Governors (here in after called "The Institute") has invited bids under …… (NIT number)…… dated …… for …… (name of work) …… The Institute has further agreed to accept irrevocable Bank Guarantee for Rs…… (Rupees …… only) in favour of "Registrar, IIT Goa" valid up to (date)* …… as Earnest Money Deposit from …… (name and address of contractor) …… (herein after called "the contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

OR**

Whereas the Executive Engineer……**…… Institute Works Department, IIT Goa, on behalf of the Board of Governors (here in after called "The Institute")has entered into an agreement bearing number …… with …… (name and address of the contractor) …… (herein after called "the Contractor") for execution of work…… (name of work) …… The Institute has further agreed to accept an irrevocable Bank Guarantee for Rs. …… (Rupees …… only) in favour of "Registrar, IIT Goa" valid up to …… (date) …… as Performance Guarantee/ Security Deposit/ Mobilization Advance from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

**** to be filled by EE***

2. We, …… (indicate the name of the bank)…… (hereinafter referred to as "the Bank"), hereby undertake to pay to the Institute an amount not exceeding Rs. …… (Rupees …… only) on demand by the Institute within 10 days of the demand.

3. We, …… (indicate the name of the Bank) ……, do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Institute stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs…… (Rupees …… only).

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

5. We, …… (indicate the name of the Bank) ……, further agree that the Institute shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Institute against the said contractor and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability

by reason of any such variation or extension being granted to the said Contractor or for any forbearance, act of omission on the part of the Institute or any indulgence by the Institute to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

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

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

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

9. This Bank Guarantee shall be valid up to ..... unless extended on demand by the Institute. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. ..... (Rupees ..... only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date .....

Witnesses:

1. Signature .....

Name and address

2. Signature ..... Name and address

Authorized signatory

Name

Designation

Staff code No. Bank seal

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

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

Appendix-3 :: Format for Guarantee Bond

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

The Agreement made this ..... day of ..... two thousand and ..... between ..... son of ..... of ..... (hereinafter called the Guarantor of the one part) and the IIT Goa (hereinafter called "the Employer/ the Institute, of the other part).

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

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for 05 (Five) years from date of completion of entire project.

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

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

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

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

The decision of the Engineer- in-Charge as to the cost, payable by the Guarantor shall be final and binding.

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

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

Signed, sealed and delivered by OBLIGOR in the presence of
1.
2.

Signed for and on behalf of THE PRESIDENT OF INDIA by ..... in the presence of

Appendix-4 :: Suggested Format for Experience Certificate

Name & address of the Client.....

Details of works executed by Shri/ M/s. .....

1. Name of work with brief particulars	
2. Agreement No. and date	
3. Estimated Cost	
4. Agreement amount	
5. Date of commencement of work	
6. Stipulated date of completion	
7. Actual date of completion	
8. Details of compensation levied for delayed completion, if any	
(a) Whether case of levy of compensation for delay has been decided or not	Yes/No
(b) If decided, amount of compensation levied for delayed completion, if any	
9. Amount of reduced rate items, if any	
10. Performance Report	
a) Quality of Work	Outstanding / Very Good / Good /Poor
b) Financial Soundness	Outstanding / Very Good / Good /Poor
c) Technical Proficiency	Outstanding / Very Good / Good /Poor
d) Resourcefulness	Outstanding / Very Good / Good /Poor
e) General behavior	Outstanding / Very Good / Good /Poor

Dated:

Executive Engineer or Equivalent

Appendix-5 :: Mandatory Tests

List of Mandatory Tests

As per CPWD Specifications

Appendix-6 :: MoU for Specialised Works[1]

MEMORANDUM OF UNDERSTANDING [M.O.U] BETWEEN
M/S [Name of the firm/agency with full address]
[Henceforth called the main contractor]

And

M/S [Name of the firm/agency with full address]

[Henceforth, called Associated specialised Agency]

For the execution of Specialised Work(s) of : *[insert name of work and agreement no.]* viz., *[insert the item of work eg., Waterproofing, HVAC etc.,]*

We state that the M.O.U. between us will be treated as an agreement and has legality as per the Indian Contract Act [amended up to date], and **IIT Goa** can enforce all the terms and conditions of the agreement for execution of the above mentioned items of specialised work. Both of us shall be responsible for the execution of said work as per the agreement to the extent this MOU allows.

In case of any dispute, either of us will go for mediation by the Institute. Any of us may appeal against the mediation to the Director, IIT Goa. His decision shall be final and binding on both of us.

We have agreed as under:

1] The associated specialised agency will execute all specialised work(s) in a wholesome manner as per the terms and conditions of the agreement and as per the direction of the Engineer-in-charge.

2] The Associated specialised agency has gone through the contract and has understood the scope of work required for the purpose of executing the specialised work(s).

3] All the machinery and equipment, tools and plants, special T&P required for execution of the

specialised work(s), as per agreement, shall be the responsibility of the associated specialised agency.

4] The site staff required for the specialised work(s) shall be arranged by the associated specialised agency as per the terms and conditions of the agreement.

5] Site order book maintained for the said work shall be signed by the authorised representative of the main contractor as well as the Associated specialised Agency.

6] All the correspondence regarding the execution of the specialised work(s) shall be done by the Department with the Associated specialised agency, with a copy to the main contractor. In the event of non-compliance with the provisions of the agreement, the main contractor and the associated agency shall be responsible. The action under GCC Clauses 2 and 3 shall be initiated and taken against the main contractor.

SIGNATURE OF MAIN CONTRACTOR SIGNATURE OF ASSOCIATED SPECIALIZED AGENCY

Date:

Place

[1] To be submitted while proposing the specialized agency for approval of the EIC.

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Appendix-7 :: List of Approved Makes

1. The material shall be procured as per preference of Make in India Policy and Government of India circulars / guidelines issued time to time.

2. In case the makes of certain items are missing or not available in the preferred make list, the appropriate make shall be selected with the approval of the NIT/TS approving authority. The NIT approving authority may permit an equivalent or alternate make, provided that proper justification is submitted along with documentary evidence demonstrating the non-availability of the preferred make. If the approved equivalent or alternate make is of a lower rate, a cost adjustment in the form of recovery shall be applied at the time of approving the alternate or equivalent make. However, if the equivalent or alternate make is of a higher rate than the makes listed in the preferred make list, no cost adjustment shall be made.

3. The Contractor shall obtain prior approval from the Engineer-in- charge before placing order for any specific material or engaging any of the specialized agencies. The Contractor shall make a detailed submittal with catalogues and highlighted proposed specifications, as well as full details of the works proposed to be executed by the specialized agency, as specified.

4. All makes shall further confirm to standard specifications of each item as mentioned in technical specifications of tender documents.

5. The Engineer-In-Charge shall verify that manufacturers must have valid IS certification as on date for materials wherever applicable.
6. The phrase "***or approved equivalent***" shall be appended against the names of the makes of each material/item.

Civil Items:

Material / Item	Approved Make
CIVIL WORKS	
AAC Blocks	Xtralite from Ultratech, Aerocon from HIL, ECOREX, BILTECH
AAC block joining mortar	Fixoblock xtralite from Ultratech, Smartfix from Aerocon, MYK Laticrete, Ardex Endura
Acoustic Insulation (Mineral Wool)	Lloyd, Ecophone from Saint Gobain, U.P. Twiga Ltd, Rockwool India, Anuton, Knauf, Siderise
Acoustic Wooden Door	Pacific, Navair, Tesco
Acoustic Seal	Lorient, Raven, Dorma, Kelargo, Reddiplex
Acoustical Ceiling / Wall Panelling	Anutone, Ecophon - Saint Gobain, USG Boral, Armstrong,
Access panel in False ceiling	Saint Gobain, USG Boral, Knauf Denoline
Adhesive For Wood Work	Ardex Endura, Laticrete, Pidilite,
Air transfer grills	Trox, Ruskin Titus, Systemair India
Aluminium Accessories	Classic/ Argen/ Oxford/ Nulite/ Crown/ EBCO

Material / Item	Approved Make
Aluminium composite panel	Alucobond, Alstone, Alubond, Eurobond, Aludecor, Alstrong
Aluminium Sections	Hindalco, Jindal, Bhoruka, Indalco
Aluminium System Windows	Kaluco, Technal, Domal, ALCOI, Eternia from Hindalco, Alumak,
Aluminium Systems Glazing/ Curtain wall (Façade system)	Schuco, Reyners, Kawneer, Bhoruka
Aluminium D/W hardware	Alualpha, Lavaal, Giesse, Cotswold, Securistyle, Polismar
Aluminium Louvers	Hunter Douglas, Armstrong, Luxalon
Anchor Fastner, Rebar, Chemcial/ Mechanical fastner, Core - cutting, Dry stone cladding clamp, Expandable fastners	Hilti, Fischer
Anti-Termite Pesticides - (Chloropyriphos)	DE - Nocil, Bayer, Biflex-TC from FMC, Hilban from HIL
Automatic Slidding doors/ Revolving Doors	Dorma, Geze, Hafele
Acoustical Ceiling / Wall Panelling	Anutone, Ecophon - Saint Gobain, USG Boral, Armstrong, Knauf Denoline
Acoustic Wall Panel	Armstrong, Ecophon, Anutone
Access panel in False ceiling	Saint Gobain, USG Boral, Knauf Denoline, Anutone
Adhesive For Wood Work	Ardex Endura, Laticrete, Pidilite,
Aluminium Sections	Hindalco, Jindal, Bhoruka, Indalco, Global
Aluminium System Windows	Kaluco, Technal, Domal, ALCOI, Eternia from Hindalco, Alumak,
Aluminium Systems Glazing/ Curtain wall (Façade system)	Schuco, Reyners, Bhoruka or approved equivalent
Auditorium Chairs	KI Seating, Acoustika, Featherlite
Acoustical Doors	Signum, Hillpoint, Stairway Studio.
Backer Road	Supreme, Fosroc
Calcium Silicate Board	Hilux, Aerolite, Pamtech, Promatech
Cement OPC/ PPC	Ultratech, ACC, Lafarge, Bharathi, Zuari.
Cement - White	Birla, JK
Cement Fiber Board	Everest, NCL Industries (Bison Panel), Shera Board, Visaka Industries (V- Next), Century (Zykron),
Chemical Admixtures & Additives	BASF, Pidilite, Sika, Fosroc, Ecmas, Sunanda Chemicals, Mapei, Hycrete, Bal-Endura, MC Bauchemie, MYK Schomburg,
Children Play Area	Koochie or Eqivallent
Commercial ply & Board	Greenply, Archidply, Century, Duroply, Uniply, Kitply, National
Crystalline Integral Waterproofing	Kryton, Penetron, Pidilite, BASF, Fosroc, Sika, Xypex
Ceramic Fritting on Glass	Art & Glass, GSC Glass, Ashai
Cement Concrete Jali	Amusement Concrete Jali, Birla or approved equivalent
Concrete Cover Blocks	Astra, Ramtec or approved equivalent. For exposed concrete only pointed type shall be approved
Ceramic Tiles	Kajaria, RAK, Restile, Somany, Jhonson, Asian

Material / Item	Approved Make
Ceramic Tiles	Kajaria, RAK, Restile, Jhonson, Asian
Compact laminated sheet	Greenlam, Marino
Cement Concrete Jali	Amusement Concrete Jal, Birla or approved equivalent
Concrete Cover Blocks	Astra, Ramtec or approved equivalent. For exposed concrete only pointed type shall be approved
Ceiling Wall Panel	Armstrong, Ecophon, Anutone
Colour Coated Galvalume Standing Seam Roofing	Agrima Roof & Façade systems, Maxroof , Optima India
Galvalume roofing sheets and accessories	Tata Steel, JSW Steel or approved equivqlent
Door Closer	Dorma (XLC), Hafele, Yale, Geze
Door Locks, Access Control Lock	Dorma (XLC), Geze, Kich, Hafele, Assa Abloy (Yale)
Door Hardware (other than Floor spring, Closer, Locks)	Dorma (XLC), Kich, Hafele, Assa Abloy (Yale),
Door Seal – Wool pile Weather Strip	Reddiplex, Osaka rubber, Enviro Sealz, Anand
Double Side Tape, Decorative Tape	3M
Door Hardware (other than Floor spring, Closer, Locks)	Dorma (XLC), Kich, Hafele, Assa Abloy (Yale), Dorset,
EPDM Gaskets	Anand, Osaka Rubber, Roop, Bohra, Hanu, Maharashtra polymer
Epoxy Grout/ Cementitious Grout for Flooring	Ardexl Endura, MYK Latricrete, Kerakoll, Pidilite
External Paving Tiles (Cement based)	Pavit, Basant baton, Vyara, Ultra, Eurocon, Super
Expansion Joint System	3R, Kantaflex, sandfield, Deevin, Vexcolt
Expansion Filler board - Premoulded compressible	Supreme (Capcell HD100), Shalitex -STP
Fabric (Acoustic and fire rated)	Atmosphere, Palette, D'décor Fabric,Response fabric
Fire Doors	Shakti Horman, Pacific, Navier, iCLEAN - IHMS, Promat,
Fire Rated Hardware	Dorma, Hafele, Geze, Horman, Assa Abloy (Yale)
Fire Seal, Fire smoke Seal	3M, Hilti, Dorma, Sealz, Lorient, Kelargo, Raven
Fire rated Glass	Vetrotech Saint-Gobain, Pyroguard, Glaverbel, Schott - Pyran, Pyroswiss
Fire rated Glass fixing gasket, tape	Karfani, 3M
Floor Springs	Dorma (XLC), GEZE, Haffle, Assa Abloy (Yale)
Floor hardening compound	JBA, Ardex endura, Fosroc, Basf, Sika, Sunanda chemicals
Flush Door Shutter (Factory pressed laminated)	Century, Greenply, Duroply, Kitply, Uniply, Anchor
Furniture Hardware	Hettich, Hafele
Fabric (Acoustic and fire rated)	Atmosphere, Palette, D'décor Fabric, Response fabric
Fly ash for SCC : Manuguru	HWP and for other work : NTPC Ramagundam
Floor Drain	Neer, ACO, GMGR

Material / Item	Approved Make
GRC JALI	Birla GRC, MS Engineers, Ionex engineering co
Glass, Tinted Glass, High Performance Glass, Reflective Glass	Saint Gobain, Asahi, Pilkington
Glass Processing	FG, Fuso, Asahi,
Glass, Tinted Glass, High Performance Glass, Reflective Glass	Saint Gobain, Modiguard (Gujarat Guardian), Pilkington, Asahi
Glass Processing	FG, Fuso, Asahi, Saint Gobain
Glass Doors (Motorised systems / sliding system)	DORMA, Haffle,
Glass Doors (Motorised sytems/sliding system)	DORMA, Haffle
Glass Fibre Acoustical Tiles	ECOPHON, Armstrong, Anutone, AMF
Glass mosaic tiles	Italia, Bissazza, Scisis, Palidio
Grab Bars and Disabled Hardware	Cera, Jaquar, Hindware, Dorma
Gypsum plaster	Stain Gobain, Perma board or approved equivalent,
Grab Bars and Disabled Hardware	Cera, Jaquar, Hindware, Dorma
Gypsum ceiling board	Saint Gobain, Knauf, USG Boral
Gypsum plaster	Stain Gobain, Perma board approved equivalent
Glass	Saint Gobain, Modifloat, Pilkington
GI channels	Gypsteel, Anutone, Hillpoint Diamond Frames.
Honey Comb Panels	Sarey approved equivalent
Honey Comb Panels	Honeycomb India Pvt Ltd, Sarey or approved equivalent
Heavy duty Vitrified Tile 16mm	Somany , Johnson , Nitco
Laminates	Marino, Century, Greenlam, Formica, Sunmica,
Laminated Shuttering Ply	Green Ply , Century Ply, Archidply
Laminated wooden slats	Hillpoint, Anutone, Topakustik Tranquil
Masking Tapes	3M, Sun Control, Wonder Polymer. Essentra
Metal Ceilings	Luxalon, Armstrong, Hunter Douglas, Saint Gobain
Metal Doors (Non Fire rated)	Shakti Horman, Naviar, Ahlada, Metaflex, Pacific
Mineral Fibre Grid Ceilings	Armstrong, Saint Gobain (Ecophon), Anutone, USG Boral, Knauf, AMF
Mirrors	Saint Gobain, Modi Guard (Gujarat Guardian), Asahi, HNG, Pilkington
Modular Toilet Cubical - Compact laminate	Merino, Greenlam, Stylam
Metal Ceilings	Luxalon, Armstrong, Saint Gobain, Hunter Douglas, Dexune, USG Boral
Mineral Fibre Grid Ceilings	Armstrong, Saint Gobain (Ecophon), Anutone, USG Boral, Knauf, AMF, Dexune
MS Expanded metel mesh (Powder Coated)	Tata, Asian Streck Metal
Non shrink cementious precision (anchoring) grout	Fosroc, Sika, Ardex Endura, BASF
Patch Fitting	Dorma (XLC), Haffle, Geze, Hettich
PAINT - Cement Based	ICI Dulux, Berger Paints, Asian, Nerolac

Material / Item	Approved Make
Paint - Acrylic, Synthetic Enamel, Acrylic emulsion- interior and exterior	Asian Paints, Akzo Nobel (Dulux), Berger, Nerolac, Jotun
Polished Concrete Flooring	JBA, Impact flooring approved equivalent
Paint - Texture Paints (Interior, Exterior)	Asian, Jotun, ICI Dulux, Berger, Nippon
Paint - Anti microbial paint	Asian, Berger, Jotun
Paint - Fire Retardant paint	Jotun, Akzo Nobel, Viper-Nullifire, Asian
Paint - High Albedo paint/ Solar reflective paint	BASF, Jotun, Sika, Fosroc, Pidilite, Ecmas
Paint - Oil Bound Distemper & Dry Distemper	Asian Paints, AkzoNobel (ICI Dulux), Berger
Paint - PU paint, epoxy paint and primer	Asian, Nippon, ICI, Berger, Jotun, Nippon
Parapet Drain	Neer, Chilly,Camry
Polycarbonate Sheets & Panel system	Tuflite, Gallina India, Dan Pal (Dpi daylighting)
Polish for wooden work	MRF, Asian
Polysulphide Sealant	Fosroc, Dow corning, Sika, MC-bauchemie
Polyurethane Concrete Flooring, Epoxy flooring, Self Levelling compound	BASF, Fosroc, Ardex Endura, MYK Schomburg, Sika,
Polyurethane Overdeck insulation foam	BASF, Pidilite, Ecmas, Lloyd Insulations
Polyster Powder coating/ PVDF Coating	Jotun, Akzo nobel (Interpon), Valspar, Asian PPG
Precast panels for Façade	Fuji -Silvertech, Elematic, Preca
Precast concrete tiles, Interlocking Paving, Brick paver, Grass/ Grid Pavers	Vyara, Basant betons, Super Decorative floorings, Ultra Tiles, Unistone, Nimco
Pre cast Concrete Landscape elements, gratings, kerb, Drain cover	Vyara, Basant betons, Super decorative floorings, KK Manholes & Gratings, Nimco
Precoated Galvanised Sheets	Tata-Blue scope, Jindal, Everest, Interarch
PT strands	DP Wires, Tata, Usha Martin
PVB/ SGP Laminate Film, Sentry film	Dupont, Saflex, Eastman , Saint Gobain, XDS
PVC continuous fillet for periphery Packing of Glazings/ Curtain Wall	Roop, Anand, Forex Plastic or approved equivalent
PVC trims	Sanjay Polymer, Tubes & Tubings
Patch Fitting	Dorma (XLC), Haffle, Geze, Hettich, Kinlong
PAINT - Cement Based	ICI Dulux, Berger Paints, Asian, Nerolac
Paint - Texture Paints (Interior, Exterior)	Asian, Jotun, ICI Dulux, Berger, Nippon
Paint - Oil Bound Distemper & Dry Distemper	Asian Paints, AkzoNobel (ICI Dulux), Berger,
Polycarbonate Sheets & Panel system	Tuflite, Gallina India, Dan Pal (Dpi daylighting),
Polysulphide Sealant	Fosroc, Dow corning, Sika, MC-bauchemie
Polyurethane Concrete Flooring, Epoxy flooring, Self Levelling compound	BASF, Fosroc, Ardex Endura, MYK Schomburg, Sika,
PUF Insulated Panels for Wall & Roof	JSW, Virat

Material / Item	Approved Make
Precast concrete tiles, Interlocking Paving, Brick paver, Grass/ Grid Pavers	Vyara, Basant betons, Super Decorative floorings, Ultra Tiles, Unistone, Nimco
Pre cast Concrete Landscape elements, gratings, kerb, Drain cover	Vyara, Basant betons, Super Decorative floorings, KK Manholes & Gratings, Nimco
Plain gypsum plaster board	Gyproc, USG Boral, Knauf Gypsum.
Perforated gypsum plaster board	Gyproc, Knauf Danoline, Anutone
Perforated veneered wooden panels	Hillpoint , Anutone , Topakustik
Polyester wool	Anutone, Hillpoint, Prominent Insulations
Reinforcement Steel: Main Producers only	SAIL, TATA (TISCO), RINL, JINDAL
Rock wool Insulation	UP Twiga, Rockwool India, Lloyd, Ecophone, Knauf,
Retro Plate System (Concrete Floor Precessing)	JBA, Impact flooring or approved equivalent
Reinforcement Steel	SAIL, TATA (TISCO), RINL, JINDAL
Signage vinyl sticker	Claude Neon, Prolite 3M
Silicon Gaskets	Sree Gaurav, Roop
Silicone Sealant	Wacker, Dow Corning, GE momentive, MC-bauchemie, Pidilite
Spider Fittings/ WCP profiles	Dorma, Hefele, Hettich, Dline, Geze
Stainless Steel	SAIL, Jindal, Salem steel
Stainless Steel Bolts, Washers and Nuts, Pressure plates, screws	Kundan, Puja, Atu, GKW, knettlefoldl
Stainless Steel Friction Stay	Giesse, Securistyle, Cotswold, Hefele
Structural Silicon sealant, Weather Silicone	Dow Corning, Momentive (GE)
Structure Steel & Hallow Section Producers only	SAIL, TATA (TISCO), RINL, Jindal steel & Power (JSPL) or approved equivalent for non-structural work
Suspended ceiling system	Armstrong, Saint Gobain, USG Boral, Knauf, Anuton
Swimming pool tile (FINA approved)	Johnson Endura or approved equivalent
Stainless Steel	SAIL, Jindal, Salem steel
Soft fibre tile with T grids	Anutone, Hillpoint, AMF, Armstrong, Ecophon
Tandur stone	Bhikshu Granimart LLP, Arihant Marbles, Natural Marble, Patel granite and marbles
Tensile Fabric Roofing	Ferrari, Saint Gobain, Melher
Tactile Guiding & Warning flooring	Johnson, Pelican ceramics, Maiara technologies
Tensile Fabric Roofing	Ferrari, Saint Gobain, Mehler,
Tiles/ Stone Adhesive	Pidilite, MYK- Latricrete, Ardex Endura, KeraKoll, Ultratech
Veneer - Natural	GreenLam, Century, Kitply
Vitrified Tiles	Kajaria, RAK, Restile, Somany, Jhonson, Asian or approved equivalent
Veneered plywood	Hillpoint, Greenply, Anchorply
Veneered wooden slats	Hillpoint , Anutone, Topakustik Tranquil
White cement based putty	Birla, JK
Water Proofing compound	Fosroc, Sika, BASF,

Material / Item	Approved Make
Water proofing membrane/ coating (PU/ Elastomeric cementitious coating)	SIKA, BASF, Fosroc, Pidilite, Sunanda Chemicals, MYK Schomburg
Other waterproofing materials	SIKA, BASF, Fosroc, Pidilite, Sunanda Chemicals, MYK, Zydex, Ardex
Water Stops - Hydrophilic Swellable rubber strip	Sika, BASF, Fosroc, Hydrotile, Penetron
Wood Wool board	Anutone, Armstrong, AMF, Himalaya Acoustic
Wooden Ceilings/ Wall panelling	Anutone, Armstrong
Wooden flooring - Engineered	Armstrong, Pergo, Mikasa, Junkers, Haro, Tarkett, Havwoods
Wool Pile with Silent Film	Schlegel or approved equivalent
White cement based putty	Birla, JK,
Water Proofing compound	Fosroc, Sika, BASF,
Water proofing membrane/ coating (Poly urethane/ Poly Urea/ Elastomeric cementitious coating)	SIKA, BASF, Fosroc, Pidilite, Sunanda Chemicals, MYK Schomburg
Water Stops - Hydrophilic Swellable rubber strip	Sika, BASF, Fosroc, Hydrotile, Penetron
Wired Glass	From Locally approved glass manufacturer
KITCHEN EQUIPMENTS	
Paper Roll Holder (Wall Mounted Stand)	KIMBERLY CLARKE, EURONICS INDUSTRIES
Soap Dispenser	KIMBERLY CLARKE, EURONICS INDUSTRIES
Sink Cock	Jaquare, Hindware, Cera
Weighing Scale (Floor Model)	ACZET PRIVATE LIMITED, WENSAR SCALES, PFB
WALK IN CHILLER	CELFROST, BLUE STAR
Sink Unit	Nirali, Jayna, Hindware, Dimond or CUSTOM FABRICATED
PLUMBING WORKS	
Sanitary Ware, CP Fittings & Washroom Accessories	
Vitreous China Sanitary ware	
European Water Closet (Type 1/ 2)	Hindware / TOTO / Kohler / Parry ware / Cera
European Water Closet (Type 3)	Cera / TOTO / Kohler
Indian Water Closet (Orissa Pan)	Cera / TOTO / Kohler
Concealed Cisterns	
Concealed Cistern – Type 1	Hindware / TOTO / Kohler
Concealed Cistern – Type 2	Cera / TOTO / Kohler
Wash Basin	
Under Counter White Vitreous China Wash Basin – Type 1	Hindware / TOTO / Kohler
Under Counter White Vitreous China Wash Basin – Type 2	Cera / TOTO / Kohler
Laboratory Sink	
White Vitreous China Laboratory Sink	Cera / TOTO / Kohler
Divyang Toilet Set	
Divyang Toilet Set – Type 1	Hindware / TOTO / Kohler
Divyang Toilet Set – Type 2	Cera / TOTO / Kohler

Material / Item	Approved Make
White Enamelled Acrylic Bath Tub Set	Hindware – Tiffany / TOTO / Kohler
Urinals	
White Vitreous China Urinal – Type 1	Hindware / TOTO / Kohler
White Vitreous China Urinal – Type 2	Cera / TOTO / Kohler
Ceramic Soap Dish	
White Vitreous China Recessed Type Ceramic Soap Dish	Cera / Parryware
C.P. Brass Faucets & Fittings	
C.P. Brass Faucets	Jaquar / Hindware / Kohler
C.P. Brass Fittings	Jaquar / Hindware / Kohler
Wash room accessories	Jaquar / Euronics / Kohler
Stainless Steel Ware, Fittings & Accessories	
Stainless Steel Sink	Nirali / Neelkanth / Futura
Stainless Steel Shower Seat	Euronics / Jaquar
Emergency Eye Wash & Shower	Udyogi / Vijay / Prajesh Impex
S.S. Floor Drain Grating Cover	Chilly / Neer / Futura/Camary
Internal Drainage Pipes & Fittings	
UPVC SWR Pipes & Fittings	Astral / Supreme / Ashirvad
(Ring Fit & Self Fit)	
P.P. Pipes & Fittings	Astral Silencio / Huliot / Poloplast / Rehau
Brass Floor Clean Out	Chilly / Camry / Neer
Air Admittance Valve	Ashirvad / Astral / Supreme
G.I. Perforated Strip	NECO / Kapilansh / Saint Gobain
G.I. Rubber Coated U-Clamps	Ashirvad / Astral / Supreme
G.I. Rubber Coated O-Clamps	Astral / Chilly / Intellotech
G.I. Threaded Rods	Hitech / Tata
C.I. Parapet Drain	Neer/GMGR/ACO
Water Supply Pipes & Fittings	
CPVC Water Supply Pipes	Astral / Supreme / Ashirvad
G.I. Pipes	Tata / Zenith / Jindal
HDPE Pipes	Jain Irrigation / Supreme / Oriplast / Nagarjuna
D.I. Pipes	Neco / Welspun
Pipe Insulation	Armaflex / Thermaflex
CPVC Ball Valve	Ashirvad / Astral / Supreme
Pressure Reducing Valves	Zoloto / Sant / Varie
Gun Metal Ball Valve	Zoloto / Sant / Leader
Gun Metal Wheel Operated Sluice Valve	Zoloto / Sant/ Leader
Gun Metal Gate Valve	Zoloto / Sant/ Leader
Gun Metal Butterfly Valve	Zoloto / Sant / Leader
Gun Metal Non-Return Valve	Zoloto / Sant/ Leader
Electrically Operated Actuator Valves	Zoloto / Sant / Equivalent
Cast Iron Y Strainer	Zoloto / Sant/ Leader
Electronic Water Meter	Krohne / Dwyer
Air Release Valve	Zoloto / Sant/ Leader

Material / Item	Approved Make
Pressure Gauge	Zoloto / Sant / Equivalent
Water Level Sensor / Indicator	Honeywell / Wika / Seimens
Pipe Clamps and Support	Intellotech / Fischer / Hitech / Hilti
Water Tank Air Vent with Mosquito Net	

Electromechanical Items:

Material/ Equipment	Approved Make
ACB	ABB, Schneider, Siemens, L&K Lauritz Knudsen
AVR (Automatic Voltage Regulator)	Crompton Greaves / Kirloskar/ Voltamp/ BHEL/ Toshiba/ Schneider/ Siemens/ ABB/ Pai Kane
Battery Charger	Max. Power , CALDYNE, VOLSTAT, HBL
Batton Holder, Angle Holder Ceiling Rose	Anchor , CPL, Havells
Busduct/busbar trunking/ Rising Mains	C&S/ L&K/L&T/ Siemens/ ABB
Cable Gland	Comet , Dowell's, Jainson, HMI, 3D, 3M
Cable Lugs	Comet, Dowell's (Biller India) , Jainson , 3D, 3M
Cable Trays	OBO ,Indiana, Legrand, Profab Engineers
Chemical Earthing	Obo/ True power/ Inter-Tech / Marconite / Vasconite / ADAS Earthlink/ U Protect/ Universal / Earth Plus / AE Power
BLDC Ceiling Fan	Usha, Orient, Atomberg, Havells, Bajaj, Crompton Greaves
Control Cable (ISI Approved)	Finolex, RR Kabel, Havells, Polycab, Grandlay, Lapp India
Copper Conductor PVC Insulated Wires/ Stranded Flexible Wires (FRLSH)	Finolex, RR Kabel, KEI, HAVELLS, POLYCAB, Grandlay, Lapp India
Current Transformer (Cast Resin Epoxy Coated)	GED approved make only.
Cable Management System (Wire Trunking) Raceway	OBO, Legrand , MK
Distribution Boards (MCB DBs)	Legrand, Schneider, Hager, L&T, ABB, Havells
Electronic Digital Meter, Multifunction meter with LED Display.	Schneider (Conzerv), Secure, Elmeasure, HPL, L&K
Fan Box	MS Type Only as approved by E-in-C
HRC Fuse and Fuse Fitting	ABB, GE, Siemens, L&T, Schneider
Indicating Lamps	L&T, Siemens, Schneider, ABB, MG, Salzer
LED Lamp(where ever required)	Cree, Osram, Nichia, Philips.

Light Fixtures (Internal)	Philips, Wipro, Osram, Havells, Orient, Crompton, Jaquar, Bajaj
Light Fixtures (External)	Philips, Wipro, Osram, Havells, Orient, Crompton, Jaquar, Bajaj
Lighting Control	Lutron, Schneider, Crestron, ABB, Philips
Lightning Protection System	Dehn, OBO, ABB, L&T
LT Contactors/ Relay	L&K, Legrand, Siemens, Schneider, ABB
MCB/RCCB / SPD/RCBO/ ELCB	Legrand, Schneider, Hager, L&K, Siemens, ABB, C&S
MCCB	ABB, Schneider, Siemens, L&K, C&S
Metal Clad Plug & Socket (Industrial)	Legrand, Schneider, Neptune, Mennekes, Hager, ABB
Modular Switches with accessories, Socket Outlets and Wiring Accessories with moulded Cover Plate.	Schneider(Opale), Legrand(Arteor), MK(Blenz), Havells (Athena Plus), ABB (Zenit)
MS Black Stove Enameled ERW Conduits (ISI Approved)	AKG, BEC, Steel kraft
Ready made pole	Bajaj, Philips, Schreder, Crompton
Fabricated pole/Customized pole	As per tender description
Power Distribution Panels (TTA) Totally Type Tested (As per IEC-61439 - 1 & 2)	Siemens , Schneider, ABB , L&K (Approved OEM Vendors only)
Power Distribution Panels (Non -TTA)	Channel partner panel builder of OEM ABB/ Siemens/ Schneider/ Lauritz Knudsen (L&K)/ Legrand
Potential Transformer	GED approved make only.
Push Buttons	ABB, L&T, Schneider , Rishabh
PVC Conduit (FRLS) & Accessories (ISI Approved)	Precision, BEC, AKG, Polycab
Power cables HT/LT	Havells / RR Kabel/ Polycab/ Finolex/AKG/ KEI/ Grandlay
PVC Tape	Anchor, Steelgrip
PC for SCADA System	Dell, HP, Lenovo
SCADA System	L&K, Siemens, Ashida, Schneider
Sandwiched Type Bus Duct/Rising mains	Schneider, Legrand(Zucchini), IIGM-EAE, L&T , C&S , Henikwon
Sealed Maintenance Free Batteries	Exide, HBL, Amar Raja, Hitachi
Selector Switches (ASS/VSS)	Kaycee, ABB, Siemens, Schneider, L&K, Salzer
Sensor(Occupancy Sensor)	Honeywell, Wipro, Hager, Philips, Theben
Terminal Block	Wago, Jainson, Elmex, Connectwell, Phoenix
Themoplastic Boxes	Hensel, Splesberg, OBO, Syntex, Hager
Transformers	Crompton Greaves / Kirloskar/ Voltamp/ BHEL/ Toshiba/ Schneider/ Siemens/ ABB

Timers	Schneider, Siemens, L&K, ABB , Legrand
UPS	Vertiv, Schneider (APC) ,Numeric, Socomec , Eaton, GE, Hitachi, Delta
Elevator(LIFTS)	Kone, Schindler, Mitsubishi
Exhaust Fan	Khaitan, Usha, Orient, Atomberg, Havells, Bajaj, Crompton Greaves
HT/ LT Jointing Kit & Termination Kits	Birla-3M, Raychem, Safe Kit M seal
VCB : 11 KV & HT Panels/ RMU	ABB , Siemens, Schneider Electric, L&K, CG Lucy
DG SET with AMF panel	Kirloskar, Cummins, Caterpillar
Anti Vibration Mountings	Gerb, Resistoflex , Dunlop
Motors	ABB , Crompton, Siemens
Flexible Coupling	Resistoflex , Kanwal
Residential Silencer	Same as Engine make
Semi Rotary type hand fuel filling pump	Rotodel, Kitty Binks
Capacitor	Schneider, EPCOS, Neptune, Siemens/ L&T
Master Plan & Parking & Plaza Light Fixtures	Bollard Lighting Preferred make Wipro/ PHILIPS / Osram Street Lighting Preferred make Wipro / PHILIPS / Osram Post Top Lighting Preferred make Wipro / PHILIPS / Osram
Geysers	AO Smith/Racold/Jaguar/Havells
Metering Cubicle/AB Switch/ DP Structure/ LA	GED approved make only

ELV Systems

Material/ Equipment	Approved Makes
2 X 1.5 Sq. Mm. FRLS flexible wire/ armoured cable for Fire Detection & Alarm and PA system	FINOLEX, HAVELL'S, POLYCAB ,R.R. KABLE
F/UTP CAT6A Cabling System – Cables, IO, Patch Panels and other components	COMMSCOPE -SYSTIMAX, BELDEN, PANDUIT-PANNET, R & M
Communication Cables / Signal Cable	COMMSCOPE -SYSTIMAX, BELDEN, FINOLEX, FUSION, POLYMER
UTP CAT6 Cables (for IBMS System)	COMMSCOPE -SYSTIMAX, BELDEN, PANDUIT-PANNET, R & M
Networking Switches for IBMS System	Cisco, HP, JUNIPER

Material/ Equipment	Approved Makes
Fiber Optics Cables & Components (Data & Voice/Telecom, Single Mode – Cables, LIUs, Shelves, Pigtails, Patch-cords, Connectors, Adapters, Cassettes, Couplers, Splices/Splice closure Kit / Splice trays – Indoor / Outdoor Fiber Cabling Infrastructure	COMMSCOPE -SYSTIMAX , BELDEN, PANDUIT-PANNET, R & M
Telephone Tag Block/MDF	KRONE, POUYET
SFP Module	HPE/CISCO/DELL
Networking Racks, Data Centre racks, Distribution Racks – from sizes 15U to 42U	APW-VERO PRESIDENT, NETRACK, PANDUIT, RITTAL
Addressable Fire Alarm System (UL/CE/FM, EN/Vds Listed)	BOSCH, EDWARD, ESSAR, MIRCOM, NOTIFIER, SIEMENS, Schneider.
Public Address System	ATEIS, BOSCH, HONEYWELL, TOA
IBMS Server	DELL, HP, LENOVO
IBMS Workstation/Client PC/LED Monitor	DELL, HP, LENOVO
A3 Size Laser color Printer	CANON, EPSON, HP
IBMS Software Suite	HONEYWELL-TREND, JOHNSON CONTROLS, SCHNEIDER, SIEMENS, TRANE
Standalone 32 bit BacNet Based DDCs & Modbus/ BacNet Integrators, Gateways, Routers, Network area controller	HONEYWELL-TREND, JOHNSON CONTROLS, SCHNEIDER, SIEMENS, TRANE
DDC Panel (Enclosure)	BHARTIYA CUTLER HAMMER, RITTAL, SCHNEIDER ELECTRIC
DP Sensor – Water	DWYER, HONEYWELL, HUBA CONTROL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
DP Switch – Air	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS
DP Switch - Water	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
Duct / Room Humidity Sensor	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
Duct / Room Temperature Sensor	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
Duct Static Pressure sensor – Air	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
Immersion Temperature Sensor	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
Outside Air Temperature Sensor	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE

Material/ Equipment	Approved Makes
Hardness/TDS/PH Analyzer	ABB, EMERSON, FORBES MARSHAL, HACH, JUMO, KELE, OMICRON, THERMO SCIENTIFIC, YOKOGAVA
Pressure Sensor – Water	DWYER, HONEYWELL, HUBA CONTROL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
Terminals/Lugs	PHOENIX, WAGO
Water Flow Switch	DWYER, HONEYWELL, JOHNSON CONTROLS, OMICRON, SCHNEIDER, SIEMENS, TRANE
Level Switch/Flameproof Level Switch	BANNER, GENERAL INSTRUMENTS CONSORTIUM, LEVCON INSTRUMENTS PVT. LTD.,MAGNETROL INDUSTRIAL INC., NIVELCO, OMICRON
Manageable Network switch	ARUBA/CISCO/HPE
POE Switch	ARUBA/CISCO/HPE
Distribution switch	ARUBA/CISCO/HPE
Wifi Access Point	ARUBA/CISCO/HPE

HVAC Systems

Material/ Equipment	Approved Make
'TF' Quality expanded polystyrene	Beardsell/ Styrene/ Toshiba
2-way/ 3-way Modulating Valves and Thermostat	Johnson Controls/ Siemens/ Honeywell/ Danfoss/ Belimo
Air handling Units /treated fresh air units	Zeco/ Edgetech/ VTS/ Systemair/ Citizen
Air Washer / Scrubber	Zeco/ Edgetech/ Systemair/ Ravi Aircon/ Citizen
Radiant cooling system	GIACOMINI /REHAU / OVENTROP
Dehumidifier	Bryair
BTU Meter	FORBES MARSHAL, HONEYWELL, KAMSTRUP, OMICRON, SIEMENS, SHINETECH
Air Separator	Anergy/ Xylem/ Armstrong
Al. Sheets	Hindalco/ Balco/ Nalco
Aluminum tape	Johnson/Birla 3M
Anchor/Fastener	Hilti/Fisher/ Rawl Plug
Auto Air Vent	Anergy/ Rapid Cool/ SKS/ SANT/ Honeywell
Balancing Valves	Advance /Honeywell/ Danfoss/ Castle

Material/ Equipment	Approved Make
Ball Valves set with & without Y strainer For FCU	Honeywell/ Emerald/ Zoloto/ Sant Industries
Butterfly Valves & Ball Valve	Audco/ Oventrop/ Advance/ Honeywell/Zoloto
Cabinet Fans	Zeco/ Edgetech/ Systemair/ Citizen
Centrifugal Fans for ventilation/ AHUs/ Air washer/ Scrubber	Kruger/ Nicotra/ Comefri/ Green heck
Check Valves	Advance/ Honeywell/ Oventrop/Castle/ Emerald
Closed Cell Nitrile rubber insulation/ EPDM insulation	Armacell / K- Flex/ A-Flex
Differential Pressure Switch (Water)	Johnson/ Staefa/ Honeywell/ Huba
Expansion Bellows/ Pipe Supports/ Vibration Isolators/ Duct Flexile Connections	Resistoflex/ Kanwal (Easyflex)/ Cori
Fan coil Units	Zeco/ Edgetech/ VTS/ Systemair/ Citizen
Filters (Pre, Fine, Hepa)	Spectrum/ AAF/ Camfil/ Thermadyne
Flexible Duct	Twiga/ Atco/ Kimmco
Fibre Glass Insulation	Owens corning/U.P.Twiga
Flow switch	Rapid cool/ Siemens/ Anergy
FRP Material	Reichhold/ Equivalent
G.I. Pipes	Sail/ Tata/ Jindal
G.I. Sheets	Sail/ Tata/ Jindal
Grills/ Diffusers/ Fire Dampers/ Louvers/ Volume Control Dampers/ Back Draft Dampers/ Sound attenuator	Systemair/ Titus/ Brightflow/ Caryaire/ Tristar/ Cosmos/Trox
GSS Factory Fabricated Ducts/ Duct Flanges	Rolastar/ Zeco/ Ductofab/ Ecoduct/ Dustech
Inline Fans	Kruger/ Green heck/ Air flow/ Caryaire/ Systemair/ Maico
M.S. Pipes	Tata/ Jindal Hissar / Sail
M.S. Sheets	Sail/ Tata/ Jindal
Motorized Actuator For Valves & Damper	Belimo/ Honeywell/ Siemens/ Johnson Controls
Motorized Butterfly valves	Johnson Controls/ Oventrop/ Belimo/ Siemens
Motors	ABB/ Siemens/ CGL/ BBL
PIBC Valves	Danfoss/ Oventrop/ Siemens/ TA
Plug Fans	Ziehlabegg/ Kruger/ Nicotra
Pot/Y-Strainers	SM/ Sandhu/ Emerald/ Zoloto/ Honeywell
PPGL sheets for Ducts	JSW/ Shreya Polymers/ Malur Tube/ HV metal Arc
PPGL Ducts Manufacturer	Corrosion Control equipment/ Sagar Plastic/ Ppi projects/ Citizen
Pressure Gauge	Feibig/ H. Guru/ Emerald
Pressure Relief Dampers	Trox/ Titus/ Systemair
Propeller Fans	Kruger/ Green heck/ Air flow/ Caryaire/ Systemair/ Maico
Puff pipe support	Malanpur/ lloyd/ Beardsell
PVC Eliminators	Munterz/ BKB extrusions

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Material/ Equipment	Approved Make
PVC Pipes	Finolex/ Prince/ Supreme/ KML Classic
Refrigerant Piping	Mandev/ Rajco/ Indigo/ RR Shramik
Rock Wool insulation	Roxul-Rockwool/ Rockwool india/ Lloyd
Screw Water chilling machine	Carrier/Trane/York/Daikin-Mcquay
Spiral Round/ Oval ducts	GP Spira/ Dustech/ Ductofab
Split / Window AC	Carrier/ Daikin/ Hitachi / Toshiba/LG/Blue star
VRF	Toshiba/Daikin/ LG/Samsung/ Mitsubishi Electric
Star bond/Lag Protective Coating	Paramount polytreat/ Pidilite
Thermometers	Feibig/ H. Guru/ Emerald
Tube Axial flow Fans	Kruger/ Green heck/ Air flow/ Nicotra/ Systemair/ Maico
Air curtain	Euronics/ Cosyst/ Systemair/Russel Airflow/ Dyna
Vane Axial flow Fans	Kruger/ Green heck/ Air flow/ Nicotra/ Systemair/ Maico
Variable frequency drive	ABB/ ALLEN BRADLEY/ DANFOSS/ Siemens
VAV Boxes	Trox/ Trane/ Johnson Controls
Water Pumps	Armstrong/ Xylem/ Grundfos
Welding Rods	Advani/ L&T/ ESAB
HVLS Fans	Nutech/ Ecoair/ RREL
Chiller plant manager	Daikin/ York/ TRANE/ Carrier/ Siemens/ Honeywell
Makeup water Tank	Sintex/ Supreme/ Plasto
Chilled water Hi wall	Bhutoria/ Cruise/ GE Tech/ Daikin
Electrostatic precipitator for Scrubber	Trion/ Rydair
Auto tube cleaning system	CET ENVIRO/Ecomax/Ecoair
Note:-All electrical items makes to be considered from electrical list of makes	

Fire-fighting systems

Material/ Equipment	Approved Make
Air Vessel	Fabricated
Batteries	AMCO / Amar Raja / Exide
Sluice Valve	Audco / Leader / Sant / Zoloto
Branch pipe & Coupling	Minimax / Newage / Swati / Safex / SBJ / Winco
Fire Pumps	Grundfos / Mather & Platt - Wilo / Xylem / Kirloskar
Coating wrapping material for underground pipe	IWL / STP / Tikidan
Diesel Engine	Caterpillar / Greaves / KOEL / Cummins
Fire Alarm Valve	HD / Newage / Tyco / Viking
Fire Bridged Inlet Connection	Minimax / Newage / Safex / Shah Bhogilal Jethalal
Fire Extinguishers	Cease Fire / Minimax / Safex/ Kanex
Flow Switch	Honeywell / Potter / Switzer / Danfoss / Newage
Ball Valve	Leader / Sant / Zoloto

Hydrant Valve	Minimax / Newage / Safex / Shah Bhogilal Jethalal
Hose Pipe	Minimax / Newage / Safex / Shah Bhogilal Jethalal
Hose Reel	Minimax / Newage / Safex / Shah Bhogilal Jethalal
Hose Box	Minimax / Newage / Safex / Shah Bhogilal Jethalal
Sprinklers & Flexible Hose	HD / Viking / Tyco / Newage
Kitchen Fire Suppression System	UL Listed of approved make

Mechanical Works

Material/ Equipment	Approved Make
Electro-mechanical Equipment's & Plants	
Pumps	
Motors	Xylem / Grundfos / Wilo / Kirloskar
Hydro Pneumatic System	Xylem / Grundfos / Wilo / Kirloskar
Submersible Pumps	Xylem / Grundfos / Wilo / Kirloskar
De watering Pump for Rain water	Xylem / Grundfos / Wilo / Kirloskar
Mud pump for Drainage	Xylem / Grundfos / Wilo / Kirloskar
Drinking Water Equipment's	
Domestic UV system	Aquila / Kent / Eureka Forbes
Water Cooler	Blue Star/ Voltas/ Usha
Drinking Water Combined System of Cooler with R.O. Plant	Blue Star/ Oasis/ Voltas/ Aquatek
Hot Water Equipment's	
Electric Geyser	A O Smith / Racold / Jaquar
Heat Pump H.W.S.	A O Smith / Daikin / Racold/ BOSCH
Solar HWG	Racold / BOSCH/EMMVEE/RASHMI
Thermostat	Honeywell / Zoloto / Sant
Temperature Gauges	Honeywell / Zoloto / Sant
Hand drier	Jaquar / Euronics/Kohler

Appendix-8 :: Integrity Pact

PRE-CONTRACT INTEGRITY PACT

(To be submitted with the technical bid)

INTEGRITY PACT

Between

Indian Institute of Technology, Goa

and

..... hereinafter referred to as "The Bidder/Contractor"

1. IIT, Goa intends to award the contracts for the job .....Vide Tender Enquiry no .....date ..... under laid down organizational procedures. values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness and transparency in its relations with its Bidder(s) and / or Contractor(s).

2. **Objectives:**

In order to achieve these goals, IIT, GOA and bidder agree to enter into this pre-contract agreement, hereinafter referred to as Integrity pact, to avoid all forms of corruption by following a system that is fair, transparent and free from any influence / unprejudiced dealings prior to during and subsequent to the currency of the contract with a view to:

2.1 Enabling IIT, GOA to obtain the desired product / service at a competitive price in accordance with the specifications by avoiding the high cost and distortionary impact of corruption on public procurement, and

2.2 Enabling bidder to abstain from bribing or any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also refrain from bribing and other corrupt practices and IIT, GOA will commit to prevent corruption in any form by their officials by following transparent procedures.

3. **Commitments of IIT, GOA**

IIT, GOA commits itself to take all measures necessary to prevent corruption and to observe the following principles:

3.1 No employee of IIT, GOA, personally or through family members, will in connection with the tender for, or the execution of a 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.

3.2 IIT, GOA will, during the tender process treat all Bidder(s) with equity and reason. IIT, GOA 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.

3.3 IIT, GOA will exclude from the process all known prejudiced persons.

3.4 If IIT, GOA obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, IIT, GOA will inform its Vigilance Office and in addition can initiate disciplinary actions.

4. Commitments of the Bidder(s)/Contractor(s)

The Bidder(s)/Contractor(s) commit themselves 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.

4.1 The Bidder(s) /Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of IIT, GOA's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial 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.

4.2 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 introduce cartelization in the bidding process.

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

4.4 The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all 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.

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

4.6 Foreign bidders to disclose the name and address of agents and representatives in India and Indian Bidders to disclose their foreign principals or associates.

5. Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before contract award or during execution, has committed a transgression through a violation of Section 4 above or in any other form such as to put his reliability or credibility in question, IIT, GOA is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or to terminate the contract, if already signed, for such reason.

5.1 If the Bidder(s)/Contractor(s) has committed a transgression through a violation of Section 2 above such as to put his reliability or credibility in question, IIT, GOA is entitled also to

exclude the Bidder(s)/Contractor(s) from future tender processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder(s)/Contractor(s) and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

5.2 If the Bidder(s)/Contractor(s) can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, IIT, GOA may revoke the exclusion prematurely.

5.3 A transgression is considered to have occurred if in light of available evidence, no reasonable doubt is possible.

6. Compensation for Damages

6.1 If IIT, GOA has disqualified the Bidder(s) from the tender process prior to the award according to Section 3 above, IIT, GOA is entitled to demand from the Bidder(s) liquidated damages equivalent to 3% of the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.

6.2 If IIT, GOA has terminated the contract according to Section 3, or if IIT, GOA is entitled to terminate the contract according to Section 3, IIT, GOA shall be entitled to demand and recover from the Bidder(s) liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

6.3 If the Bidder(s)/Contractor(s) can prove that their exclusion from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount of the liquidated damages, the Bidder(s)/Contractor(s) has to compensate only the damage in the amount proved. If IIT, GOA can prove that the amount of the damage caused by the disqualification of the Bidder(s)/Contractor(s) before contract award or the termination of the contract after contract award is higher than the amount of the liquidated damages, it is entitled to claim compensation for the higher amount of damages.

7. Previous Transgression

7.1 The Bidder(s)/Contractor(s) to disclose any transgression with any other public/government organization that may impinge on the anti-corruption principle. The date of such transgression, for the purpose of disclosure by the bidders in this regard, would be the date on which cognizance of the said transgression was taken by the Competent Authority. The period for which such transgression(s) is/ are to be reported by the bidders shall be the last three years to be reckoned from the date of bid submission. The transgression(s), for which cognizance was taken even before the said period of three years, but are pending conclusion, shall also be reported by the bidders.

7.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

8. Equal treatment of all Bidders/Contractors/Sub-contractors

8.1 The Bidder(s)/Contractor(s) undertake(s) to demand from all sub-contractor(s) a commitment in conformity with this Integrity Pact, and to submit it to IIT, GOA before contract signing.

8.2 IIT, GOA will enter into agreements with identical conditions as this one with all Bidders, Contractors and subcontractors.

8.3 IIT, GOA will disqualify from the tender process all Bidder(s) who do not sign this Pact or violate its provisions.

9. Criminal Charges against violating Bidder(s)/Contractor(s)/sub-contractors

If IIT, GOA obtains knowledge of conduct of a Bidder, Contractor or Subcontractor or of an employee or a representative or an associate of a Bidder, Contractor or Sub-contractor which constitutes corruption, or if IIT, GOA has substantive suspicion in this regard, IIT, GOA will inform the same to the Vigilance Office.

10. Independent External Monitor

10.1 IIT, GOA has appointed Independent External Monitor (IEM) for this Pact in consultation with Central Vigilance Commission (Names and addresses of the Monitors are given below)

Sl. No.	Name of IEM(s)	Address	E-Mail Id
1	Dr. Parvez Hayat	B-4/69-A. Safadarjung Enclave, New Delhi - 110 029	Email: phayatips@gmail.com
2	Shri. Dinesh Kumar Batra,	G-1/106, Elegant House, Ramprastha Grccns, Vaishali , Sector - 7, Ghaziabad - 201 012 (UP)	Email: dineshbatra11@gmail.com

The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.

The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He will convey his observations to the Director of IIT, GOA.

10.2 The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of IIT, GOA including that provided by the contractor. The Contractor will also grant the Monitor, upon his request and

demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/ Subcontractor(s) with confidentiality.

IIT, GOA will provide to the Monitor sufficient information about all meetings among the parties related to the project provided such meetings could have an impact on the contractual relations between IIT, GOA and the Contractor. The parties offer to the Monitor the option to participate in such meetings.

10.3 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of IIT, GOA and request the Management to discontinue or heal the violation, or to take other relevant action. The Monitor can in this regard submit non- binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.

The Monitor will submit a written report to the Director of IIT, GOA within 8 to 10 weeks from the date of reference or intimation to him by IIT, GOA and should the occasion arise, submit proposals for correcting problematic situations.

If the Monitor has reported to the Director, IIT, GOA a substantiated suspicion of an offence under relevant IPC/PC Act, and the DIRECTOR has not within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

10.4 The word "Monitor" would include both singular and plural.

11. Pact Duration

11.1 This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

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

12. Other Provisions

12.1 This agreement is subject to Indian Law. Place of performance and jurisdiction is the Corporate Office of IIT, GOA, [redacted]. The arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under the Integrity pact.

Changes and supplements as well as termination notices need to be made in writing. If the Vendor is a partnership firm or a consortium or Joint Venture this agreement must be signed by all partners or consortium members and Joint venture partners.

12.2 The actions stipulated in this integrity pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

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

12.4 The person signing the Integrity Pact shall not approach the Courts while representing the matters to IEMs/ Arbitration and he/ she awaits their decision in the matter".

The parties hereby sign this integrity pact at----------on ----------

_____	_____
For IIT, GOA	For Bidder/Contractor
Place : _____	Date : _____
Witness 1 (Name & address)	Witness 2 (Name & address)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Amendments to GCC Construction Works 2023

(till Feb 2026)

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction 2023/01

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi Dated: 10.11.2023

Sub: Modification in GCC Construction Works - 2023, Receipt and refund of EMDs online through e-gateway of SBI for e-tendering as pilot cases – reg.

The provision on earnest money deposit (EMD) through e-tendering is modified as under and shall only be applicable for C, E, I, N and Central Secretariat Divisions under ADG (Delhi) as pilot cases with immediate effect:-

Existing Provision	Modified Provision
CPWD-EPC CPWD-7/8 GOVERNMENT OF INDIA CENTRAL PUBLIC WORKS DEPARTMENT Percentage Rate Tender/Item Rate Tender & Contract for Works TENDER I/We have deposited EMD for the prescribed amount in the office of concerned Executive Engineer as per the bid document. A copy of earnest money deposit *receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned and uploaded (strike out as the case may be).).* If I/We, fail to	CPWD-EPC CPWD-7/8 GOVERNMENT OF INDIA CENTRAL PUBLIC WORKS DEPARTMENT Percentage Rate Tender/Item Rate Tender & Contract for Works TENDER I/We have deposited EMD **through online payment mode** for the prescribed amount as per the bid document. **In respect of portion of EMD prescribed in the shape of BG, the scanned copy of original Bank Guarantee including e-Bank Guarantee (as applicable) of any commercial bank having validity for a period of 90 days for single bid and 180 days for two bid systems or more from the last date of receipt of bids (strike out as the case may be), is to be uploaded.** If I/We, fail to.....

This is issued with the approval of DG CPWD.

10.11.2023
(वी. पी.साहू)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/ Construction e-file 9134857

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।

10/11/2023
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

(1/2)

Central Public Works Department
Office Memorandum
No. DG/CON/Construction-2023/02
ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi **Dated: 14.11.2023**

Subject: Amendments in Clause 32, Schedule F of Clause 11 and 32 of GCC 2023 Construction Works.

The following amendments in Clause 32, Schedule F of Clause 11 and 32 are made in the GCC 2023 for Construction Works.

Existing Provision	Modified Provision
Clause 32 Employment of Technical Staff and employees	**Clause 32 Employment of Technical Staff and employees**
Contractors Superintendence, Supervision, Technical Staff & Employees	Contractors Superintendence, Supervision, Technical Staff & Employees
Sl. No. (i) and (iii)	No change
(iv) No Provision	**(iv) Building Information Model (BIM) professional shall be deployed by the contractor for the projects wherever required as mentioned in Schedule F.** **The BIM professional shall be available for the work as and when required by Engineer-in-Charge.** **The BIM professional will study 3D architectural models, architectural drawings generated from 3D models, service drawings and structural drawings.** **The BIM professional will interact with architects, planning & site engineers to get the clashes removed.** **The recovery shall be made from bill of contractor in case of non-deployment of BIM Professionals/technical staff as mentioned in Schedule 'F' of NIT without giving any notice in writing.** **The decision of Engineer-in-Charge in this respect is final and binding on the contractor.**

14/11/2023
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

(2)

SCHEDULE 'F' **Clause 11** Specifications to be followed for execution of work ..... **No provision**	**SCHEDULE 'F'** **Clause 11** Specifications to be followed for execution of work ..... i. **Building information model (BIM) is applicable and BIM professional to be deployed by contractor ..... (NIT approving authority to write Yes or No)**
SCHEDULE 'F' **Clause 32 Requirement of Technical Representative(s) and recovery Rate** Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers. Diploma holder with minimum 10 year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers. **No Provision**	**SCHEDULE 'F'** **Clause 32 Requirement of Technical Representative(s) and recovery Rate** **No Change.** **No Change.** **Minimum recovery for not deploying Building Information Model (BIM) professional shall be Rs. two lac per month or as mentioned above, whichever is higher.**

This issues with the approval of DG CPWD.

14.11.2023
(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17 (1)/2023/Construction e-file 9162768

All CPWD and PWD officers for information and necessary action.
(Through CPWD website).

14/11/2023
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Central Public Works Department
Office Memorandum
No. DG/CON/Construction 2023/03
ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi Dated 06.12.2023

Subject: Modifications in Clause 12 and Schedule F for Clause 12 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 Construction Works.

Existing provision	Modified provision
CONDITIONS OF CONTRACT **Definitions** 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xv) (xvi) No provision (xvii) No provision	**CONDITIONS OF CONTRACT** **Definitions** 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xv) **No change** **(xvi) Extra items** are those items which are not available in the contract. a. **Non Schedule Extra Items** are those items which are not available in the Standard Schedule of Rates specified in Schedule F. b. **Scheduled Extra Items** are those items which are available in the Standard Schedule of Rates specified in Schedule F. **(xvii) Completion cost: The completion cost includes gross amount of work done, amount of extra items and deviations and escalation admissible as per agreement etc.**
Clause 12 Deviations/ Variations Extent and Pricing The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the	**Clause 12 Deviations/ Variations Extent and Pricing** No Change

06/12/2023
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.	
The completion cost of any agreement for Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration should not exceed 1.25 times of Tendered amount. Any further deviation beyond this limit upto 1.5 times of tendered amount shall be approved by the authority mentioned in schedule 'F' with recorded reason and in exceptional case, ADG shall have full power to approve the deviation beyond 1.50 times of tendered amount with recorded reason and take suitable corrective action.	**Deleted**
No provision	**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 taken up vis-a-vis balance items required to complete defined scope of work and will give the alerts to Engineer-in-Charge before taking up extra items, deviations so that completion cost does not exceed above limit. Work executed beyond above limit will neither be recorded nor be paid.**

06/11/2023
R.K. JAIN
(EE (Contact)

	Engineer-in-Charge will verify and confirm the alerts before assigning deviations and / or extra items to the contractor. If additional work(s) is required to complete defined scope of work beyond above limit then Engineer-in Charge may take up such work(s) separately. The contractor will not have any claims whatsoever on this account.
12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows : i. In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus ii. 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge	12.1 The time for completion of the works shall, in the event of any deviations **and extra items** resulting in additional cost over the **contract amount will** be extended, if requested by the contractor, as follows : i. In the proportion **to** the additional cost of work, bears to the original **contract amount** plus ii. 25% of the time calculated in (i) above.
12.2 Deviation, Extra Items and Pricing In the case of extra item(s) (items which are not available in the contract), the contractor may within fifteen days of the receipt of order or occurrence of the item(s), submit claim for market rate(s), supported with proper analysis of rate and manufacturer's specification for the work, invoices, vouchers, etc. (as applicable), failing which the rate(s) approved later by the Engineer-in-Charge shall be final and binding. Where the contractor submits claim for market rate(s) in the manner prescribed above, the Engineer-in-Charge shall, within 45 days of the receipt of the claims, after giving consideration to the analysis of	**12.2 Deviation, Extra Items and Pricing** **a) Non Schedule Extra Items** - The contractor may, within fifteen days of the receipt of order **to execute extra item** or occurrence of the item(s), submit **analysis of rate of extra item(s) based on the rates of materials available in basic rate of Standard Schedule of Rate mentioned in schedule F and market rates of the materials which are not available in standard schedule of rate mentioned in schedule F. For this purpose, the basic rate of materials available in Schedule of Rates mentioned in Schedule F will be enhanced or reduced by the applicable cost index, as the case**

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

rates and other documents submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.	**may be.** **The rates of the materials which are not available in Standard Schedule of Rates, mentioned in Schedule F, shall be based on, tax paid bills for the material as defined in** manufacturer's specification. **Material rates from Standard Schedules of Rates shall be given priority in the analysis of rates.** **The rate of extra item will be:-** i. **Analyzed rates as above multiplied by (tender amount divided by estimated cost put to tender), if tendered amount is below the estimated amount put to tender.** ii. **Analyzed rate, if the tendered amount is above the estimated amount put to tender.** Failing which the rate(s) approved later by the Engineer-in-Charge shall be final and binding. Where the contractor submits **analysis of rate of extra items** in the manner prescribed above, the Engineer-in-Charge shall, within **60** days of the receipt of the **analysis of rate**, after giving consideration to the analysis of rates and other documents submitted by the contractor, determine the rate(s) **of extra items.** The contractor shall be paid in accordance with the rates so determined. **However provisional rates on the basis of invoice will be allowed by the Engineer-in-Charge. Invoice shall be accepted only for materials not available in the Standard Schedule of Rates mentioned in Schedule F. The extra items rate shall be finalized only after submission of tax paid bills by**

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	the contractor to the Engineer-in-Charge as required above. The Engineer-in-Charge may apply the discount available in the market on the rate of materials taken from tax paid bills.
(b) No Provision	**b) Scheduled Extra Items** **i. For percentage rate tenders, the extra item(s) shall be paid as per the Standard Schedule of Rates, mentioned in Schedule F, enhanced or reduced by the applicable cost index and further enhanced or reduced by percentage above/ below quoted by the contractor on estimated cost put to tender.** **ii. For item rate tenders, the extra item(s) shall be paid as per the said schedule rate enhanced or reduced by the applicable cost index and multiplied by (tender amount divided by estimated cost put to tender).**
The rate(s) of extra items so determined by the Engineer-in-Charge shall be final and binding on the contractor, and shall not be arbitrable.	**Deleted**

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Deviation, deviated quantities, Pricing In the case of contract items which exceed the limit laid down in Schedule F, the contractor may within fifteen days of the receipt of order or occurrence of the excess, claim revision of the rates, supported with proper analysis of rate and invoices, vouchers, etc. (as applicable), for the quantity in excess of the above-mentioned limit. The Engineer-in-Charge shall within 45 days of receipt of the claims, after giving consideration to the analysis of rates and other documents submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined. The rate(s) so determined by the Engineer-in-Charge shall be final and binding on the contractor, and shall not be arbitrable.	**c) Deviation, deviated quantities, Pricing** In the case of contract items which exceed the limit laid down in Schedule F, the contractor may within fifteen days of the receipt of order or occurrence of the excess, claim revision of the rates, supported with proper analysis of rates **and other documents, as per procedure described in para 12.2(a) or 12.2(b)** (as applicable), for the quantities in excess of the above-mentioned limit. The Engineer-in-Charge shall within 45 **60** days of receipt of the claims, after giving consideration to the analysis of rates and other documents submitted by the contractor, determine the rates and the contractor shall be paid in accordance with the rates so determined. **In case, the contractor fails to submit his claim for revision of rates within 15 days of the receipt of order or occurrence of the excess, the Engineer-in-Charge shall determine the rate(s) of such items in accordance with para 12.2 (a) and 12.2 (b) without giving any notice to the contractor. The rates so determined by the Engineer-in-Charge shall be final and binding.** The rate(s) **of extra items and deviated items** so determined by the Engineer-in-Charge shall be final and binding on the contractor.
12.3 In the case of contract items which exceed the limit laid down in Schedule F, the Engineer-in-Charge shall after giving notice to the contractor within 30 days of submission of that bill by the contractor which contains such item(s), and after taking into consideration any reply received from the contractor within 15 days of the issue of such notice, reduce the rate for quantity in excess of the above-mentioned limit on the basis of market rates, within 30 days of the expiry	**Deleted**

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of the said period of 15 days, and the contractor shall be paid in accordance with the rates so determined. The rate(s) so determined by the Engineer-in-Charge shall be final and binding on the contractor, and shall not be arbitrable	
12.4 The cost of any operation necessarily ..... admissible for such operations.	**12.3** The cost of any operation necessarily ..... admissible for such operations.
12.4 No provision	**12.4 Cost index** **Latest available Cost index at the time of beginning of execution of extra item and deviation shall be used in sub-clauses 12.2 (a), 12.2 (b) and 12.2 (c) for calculation of rates of extra items.**
12.5 No provision	**12.5 Labour rates** **Labour rates will be based on latest available circulars issued by Central Govt. or State Govt. whichever are higher as well as applicable for the work.**
PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders) **SCHEDULE 'F'** **Clause 12** Authority to decide deviation upto 1.5 time of tendered amount	**PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders)** **SCHEDULE 'F'** **Clause 12** Deleted
12.2 & 12.3 Deviation Limit beyond which clauses12.2 & 12.3 shall apply for building work	12.2 **(c)** Deviation Limit beyond which clauses12.2 **(c)** shall apply for building work .....

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

12.4 (i) Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items) ..... (ii) Deviation Limit for items mentioned in earth work subhead of DSR and related items	(i) Deviation Limit beyond which clauses 12.2 **(c)** shall apply for foundation work (except items mentioned in earth work subhead in DSR and related items) ..... (ii) Deviation Limit for items mentioned in earth work subhead of DSR and related items .....

This OM is applicable for all NITs issued w.e.f. date of issue of this OM. This issues with the approval of DG CPWD.

06.12.2023

(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/Construction/2023 e-file no 9163323
All CPWD and PWD officers for information and necessary action.
(Through CPWD website.

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केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction 2023/04

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi Dated: 08.12.2023

Subject: Modifications in Conditions of Contract, Clause 5 and schedule F in clause 5 of GCC 2023 Construction Works

The following amendments are made in the GCC 2023 for Construction works.

Existing Provision	Modified Provision
CONDITIONS OF CONTRACT **Definitions** 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:- (i) to (xvii) (xviii) No provision	**CONDITIONS OF CONTRACT** **Definitions** 2. No change:- (i) to (xvii) No Change **(xviii) Concurrent delay: Concurrent delays are those delays occurring in the work concurrently in any combination or combination of all delay fall under different sub clauses 5.2, 5.3 and 5.5.**
Clause 5 Time and Extension for Delay The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, the performance guarantee shall be forfeited by the Engineer in Charge and shall be absolutely at the disposal of the Government without prejudice to any other right or remedyavailable in law.	**Clause 5 Time and Extension for Delay** The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the work shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site, notified by the Engineer-in-Charge, whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid **and such default continues even after time period specified in the notice in writing by the Engineer-in-Charge then** the performance guarantee shall be forfeited by the Engineer-in-Charge and shall be absolutely at the disposal of the Government without prejudice to

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

	any other right or remedy available in law. **The contract shall stand determined when such decision of forfeiture of the performance guarantee is issued to the contractor.**
5.1 As soon as possible but within 7 (seven) working days of award of work and in consideration of	5.1 **The contractor** as soon as possible but within 7 (seven) days of **issue of letter of** award of work **shall submit a time and progress chart to the Engineer-in-Charge. Such chart shall be made in due** consideration of
a. Schedule of handing over of site asspecified in the Schedule 'F' b. Schedule of issue of designs as specified in the Schedule 'F',	a. Schedule of handing over of site as specified in the Schedule 'F' b. Schedule of issue of design**(s) and drawing(s)** as specified in the Schedule 'F',
i. the Contractor shall submit a Time and Progress Chart for each mile stone. The Engineer-in-Charge may within 7 (seven) working 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 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.	i. The Contractor shall submit a Time and Progress Chart for each milestone. The Engineer-in-Charge may within 7 (seven) days **of receipt of such chart, make modifications thereafter,** if **any,** and communicate the approved **chart** to the contractor, failing which the **chart** submitted by the contractor shall be deemed to be approved by the Engineer-in- Charge. 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.
ii. 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.	ii. In case of non-submission of **time and progress chart** by the contractor, the **chart prepared by the** Engineer-in- Charge shall be deemed to be final.

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

iii. The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract.	iii. The approval by the Engineer-in-Charge of such programme shall not relieve the contractor of any of the obligations under the contract.
iv. 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 as per Schedule F to be decided by the NIT approving authority shall be made on per week or part basis in case of delay in submission of the monthly progress report	iv. The contractor shall submit the Time and Progress Chart **containing upto date progress of work** using the mutually agreed software or in **the** format decided by Engineer-in-Charge. **Such chart shall be submitted by the contractor on or before 5th day of each month failing which a recovery as mentioned in Schedule 'F' shall be made at the earliest from running account bill without any notice in this regard.**
v. **No provision**	v. **While recording the hindrances in the progress of the work, due consideration should be given to the cause of hindrance. The hindrances shall be segregated in following categories :** **a) delays due to reasons beyond the control of both parties (sub-clause 5.2)** **b) delays attributable to the Department and concurrent delays (sub-clause 5.3).** **c) delays solely attributable to the contractor (sub-clause 5.5)**
5.2 If the work(s) be delayed by:- i. force majeure, or ii. abnormally bad weather, or iii. serious loss or damage by fire, or iv. civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or v. delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in,	**5.2 Delays due to reasons beyond the control of both parties:** If the work(s) delayed by:- i. force majeure, or ii. abnormally bad weather, or iii. serious loss or damage by fire, or iv. civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or v. delay on the part of other contractors or tradesmen engaged by Engineer-in- Charge in

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

executing work not forming part of the Contract, or vi. any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control	executing work not forming part of the Contract, or vi. any other cause like above which, in the reasoned opinion of the Engineer-in-Charge is beyond the Contractor's control.
Then upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.	Then upon the happening of any such event causing delay, the contractor shall **within 03 (three) days** give **online** notice thereof **through ERP Portal** to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the work(s). **The contractor shall have no claim on account of any hindrance in case notice(s) are not given by the contractor through ERP portal.** **The Engineer-in-Charge, on receipt of such notice(s) after considering the factual ground situation, shall either acknowledge or reject the notice(s)** **In case of rejection, the reason(s) for rejection shall be communicated by Engineer-in-Charge to the agency.** **The decision of Engineer-in-Charge with regard to nature of event causing delay, its start date and end date, as has been finalized during acknowledgement of notice, shall be final and binding.** **The end date of such events shall be recorded by Engineer-in-Charge either during acknowledgment of notice or subsequent to acknowledgement if end date of hindrance is after the date of acknowledgement of notice.** **In absence of notice by the contractor, Engineer-in-Charge or his representative(s) may record the events causing delay within 05 (five)**

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

	days of occurrence of hindrance on ERP portal provided further that not recording of events causing delay by the Engineer-in-Charge does not ipso facto entitle the contractor for any hindrance.
The contractor shall have no claim of damages for extension of time granted or rescheduling of milestone/s for events listed in sub clause 5.2.	**No change.**
5.3 In case the work is hindered in the opinion of the contractor, by the Department or for any reason / event, for which the Department is responsible, the authority as indicated in Schedule 'F' shall, if justified, give a fair and reasonable extension of time and reschedule the mile stones for completion of work.	**5.3 Delays attributable to the department** In case the work is hindered, in the opinion of the contractor, by the Department or for any reason / event, for which the Department is responsible, **then upon the happening of such event causing delay, the Contractor shall within 3 (three) days give online notice there of through ERP Portal to the Engineer-in-Charge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the work.** **The contractor shall not be entitled for any hindrance in case notice(s) are not given by the contractor through ERP portal.** **The Engineer-in-Charge, on receipt of such notice(s) after considering the factual ground situation, shall either acknowledge or reject the notice(s).** **In case of rejection, the reason(s) for rejection shall be communicated by Engineer-in-Charge to the agency.** **The decision of Engineer-in-Charge with regard to nature of event causing delay, its start date and end date, as has been finalized during acknowledgement of notice, shall be final and binding.**

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

	The end date of such events shall be recorded by Engineer-in-Charge either during acknowledgment of notice or subsequent to acknowledgement if end date of hindrance is after the date of acknowledgement of notice. **In absence of notice by the contractor, Engineer-in-Charge or his representative(s) may record the events causing delay within 05 (five) days of occurrence of hindrance on ERP portal provided further that not recording of events causing delay by the Engineer-in-Charge does not ipso facto entitle the contractor for any hindrance.**
Such extension of time or rescheduling of milestone/s shall be without prejudice to any other right or remedy of the parties in contract or in law, provided further that for concurrent delays under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2 the contractor shall be entitled to only extension of time and no damages.	Such extension of time or rescheduling of milestone**(s)** shall be without prejudice to any other right or remedy of the parties in contract or in law, provided further that for concurrent delay(s) under this sub clause and sub clause 5.2 to the extent the delay is covered under sub clause 5.2, the contractor shall be entitled to only extension of time and **shall have** no **claim of** damages.
5.4 Request for rescheduling of Mile stones or extension of time, to be eligible forconsideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed forms i.e. Form of application by the contractor for seeking rescheduling of milestones or Form of application by the contractor for seeking extension of time (Appendix - XVI) respectively to the authority as indicated in Schedule 'F'. The Contractor shall indicate in such a request the period by which rescheduling of milestone/s or extension of time is desired.	5.4 **Rescheduling of milestone(s) and 'extended date of completion'** The request for rescheduling of Milestone**(s) and** extension of time, shall be made by the Contractor **through ERP Portal once in a month on the basis of hindrances accepted by Engineer-in-Charge under sub-clause 5.2 and sub-clause 5.3.** The Contractor shall indicate in such a request **number of days** by which rescheduling of milestone**(s) and/**or extension of time is desired.
With every request for rescheduling of milestones, or if at any time the actual progress of work falls behind the approved programme by more than 10% of the stipulated period of completion of contract, the contractor shall produce a revised programme without causing any delay in execution	**Deleted**

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of the work. A recovery as specified in Schedule 'F' shall be made on per day basis in case of delay in submission of the revised programme.	
No provision	**The authority as indicated in Schedule 'F', after examining the request, shall give a fair and reasonable extension of time for completion of work and simultaneously reschedule the milestone(s), if required so. The authority shall consider all the hindrances accepted as per sub-clauses 5.2, 5.3 and 5.5.** **The authority shall decide rescheduling of milestone(s) and extension of time within 21 (Twenty One) days of the request submitted by the contractor through ERP portal. In event of no request by the contractor for rescheduling of milestone(s) and extension of time, the authority as indicated in Schedule F, after affording opportunity to the contractor, may give fair and reasonable extension of time based on hindrances accepted by Engineer-in-Charge and reschedule the milestone(s) once in a month. Such justified extension of time shall determine the 'extended date' of completion of work.**
5.4.1 In any such case the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time for completion of work or reschedule the mile stones.	5.4.1 **Provided that the end date of any event causing delay shall not fall beyond the date of request for extension of time or rescheduling of milestone(s) by the contractor. In case end date of event falls beyond the date of submission of said request, then period for extension up to date of application shall be considered in the said request for events eligible for consideration and remaining period shall be applied in subsequent request of extension of time or rescheduling of milestone(s).**
E-in-C shall finalize/ reschedule a particular mile stone before taking an	**Engineer-in-Charge** shall finalize/ reschedule a particular mile stone

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Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 21 days of the date of receipt of such request from the Contractor in prescribed form. In event of non-application by the contractor for extension of time E-in-C after affording opportunity to the contractor, may give, supported with a programme (as specified under 5.4 above), a fair and reasonable extension within a reasonable period of occurrence of the event.	before taking an action against subsequent mile stone. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 21 **(twenty one)** days of the date of receipt of such request from the Contractor **on ERP Portal.**
5.5 In case the work is delayed by any reasons, in the opinion of the Engineer- in-Charge, by the contractor for reasons beyond the events mentioned in clause 5.2 or clause 5.3 or clause 5.4 and beyond the justified extended date, without prejudice to right to take action under Clause 3, the Engineer-in-Charge may grant extension of time required for completion of work without rescheduling of milestones. The contractor shall be liable for levy of compensation for delay for such extension of time.	5.5 **Delays attributable solely to the contractor** **In case the work is delayed by reasons solely attributable to the contractor, then Engineer-in-Charge or his representative(s) may record the event causing delay within 05 (five) days of occurrence of delay in the ERP portal. Contractor shall take the notice of the same for necessary action. He may submit his version, if any within 05 (Five) days. Engineer-in-Charge, considering the version of the contractor, will take decision on such recording of the event and the decision of the Engineer-in-Charge shall be final and binding.** **The contractor shall be liable for levy of compensation for such delays (i.e. for the period beyond the justified extended date of completion as determined in sub clause 5.4 and this default of contractor shall be dealt in conjunction with clause 2 of the contract.** **In case the work is delayed, due to hindrances attributable solely to the contractor, beyond the justified extended date (as stated in sub clause 5.4), the authority indicated in Schedule 'F', without prejudice to provisions to take action under Clause 3, may grant extension of**

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	time required for completion of work without rescheduling of milestone(s) and extend the date of completion.
PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect.& Hort. Works in case of Composite Tenders) **SCHEDULE 'F'** **Clause 5** **Authority to decide:**	**PROFORMA OF SCHEDULES (Separate Performa for Civil, Elect. & Hort. Works in case of Composite Tenders)** **SCHEDULE 'F'** **Clause 5**
i. Extension of time ..... (Engineer in Charge or Engineer in Charge of Major Component in case of Composite Contracts, as the case may be)	i. **Authority to convey the decision of shifting of milestone and** extension of time ..... (Engineer-in-Charge or Engineer-in-Charge of Major Component in case of Composite Contracts, as the case may be)
ii. Rescheduling of mile stones ..... (Superintending Engineer/ PM/CPM in Charge or Superintending Engineer/ PM/CPM in Charge of Major Component in case of Composite Contracts, as the case may be)	ii. **Authority to decide rescheduling of milestone and** extension of time ..... (SE/**SE&PD/ CE/ CE&ED).**
iii. Shifting of date of start in case of delay in handing over of site ..... (Superintending Engineer/ PM/CPM in Charge or Superintending Engineer in Charge of Major Component in case of Composite Contracts, as the case may be)	iii. Shifting of date of start in case of delay in handing over of site ..... (SE/**SE&PD/CE/ CE&ED).**

This OM is applicable for all NITs uploaded after date of issue of this OM.

This is issued with the approval of DG CPWD.

08.12.2023

(वी. पी.साहू)

अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/ Construction e-file 9161772

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।

R.K. JAIN 8/12/2023

(Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction 2023/05

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 08.02.2024**

Subject: Modifications in Conditions of Contract and Clause 19 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
CONDITIONS OF CONTRACT **Definitions** 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:-	**CONDITIONS OF CONTRACT** **Definitions** 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:-
(i) to (xviii)	**(i) to (xviii) No change**
(xix) No provision	**(xix) Adolescent Person: A person who has completed his/her fourteenth year of age but has not completed his eighteenth year.**
(xx) No provision	**(xx) Hazardous works: Hazardous process/works are the works as defined in the clause (cb) of the Factory Act, 1948.**
Clause 19 Labour Laws to be complied by the Contractor The contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971. The contractor shall also obtain a valid licence under the said Act before the commencement of the work, and continue to have a valid licence until its completion. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.	**Clause 19 Labour Laws to be complied by the Contractor** **No change** **No change** **No change**

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986. The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996. Any failure to fulfil these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.	The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, **amended by Amendment Act No. 35 of 2016 and thereafter time to time.** **No change** **No change**
Clause 19A No labour below the age of eighteen years shall be employed on the work.	Clause 19A No **person** below the age of **fourteen** years shall be employed on the work. **However Adolescent Persons can be employed on non-hazardous works/process.**
C.P.W.D. Contractor's Labour Regulations **2. DEFINITIONS** i. (c) Who is an out worker, that is to say, person to whom any article or materials are ..... premises under the control and management of the principal employer. No person below the age of 18 years shall be employed to act as a workman.	**C.P.W.D. Contractor's Labour Regulations** **2. DEFINITIONS** i. (c) No change. No person below the age of **fourteen** years shall be employed **on the work. However Adolescent Persons can be employed on non-hazardous works/process.**

This issues with the approval of DG CPWD.

08.02.2024

(वी. पी.साहू)

अधीक्षण अभियंता(सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9169019

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।

(केलोनिवि वेबसाईट के माध्यम से)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Central Public Works Department
Office Memorandum
No. DG/CON/Construction 2023/06

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD 01.03.2024

NIRMAN BHAWAN, NEW DELHI Dated: ~~20.02.2024~~

Subject: Modifications in Conditions of Contract, Clause 19 and 20 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
CONDITIONS OF CONTRACT **Definitions** 9. **Signing of Contract:-** The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:- (i) to (iii) No Provision	**CONDITIONS OF CONTRACT** **Definitions** 9. **Signing of Contract:-** The successful tenderer, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:- (i) to (iii) No change **In the event of successful tenderer being a firm/company, then the agreement shall be signed by all the partners or directors thereof individually. In the event of the absence of any partner/director, it shall be signed on his behalf by a person holding a power of attorney (duly notarized by notary public or board resolution in case of company) authorizing him to do so.**
Clause 19 B Payment of Wages (i) The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.	**Clause 19 B Payment of Wages** **(i)** The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the C.P.W.D. Contractor's Labour Regulations or as per the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971 **and Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) amended time to time.**

29/02/2024
R.K. JAIN
(EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

	Thus higher of the wages either notified by Govt. of India, Ministry of Labour and/or that notified by the local administration of the State Govt. both relevant to the place of work and the period of reckoning shall be paid by the contractor to the labourer .
(v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.	**(v)** The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, **Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii) and** ~~or~~ the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
Clause 20 Minimum Wages Act to be Complied With The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.	**Clause 20 Minimum Wages Act to be Complied With** The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, **Gazette Notification 19.01.2017, S.O 188 (E) extra ordinary part 2 – sec. 3 (ii)** amended from time to time and rules framed there under and other labour laws affecting contract labour that may be brought into force from time to time.

This issues with the approval of DG CPWD.

01.03.2024
(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023 e-file no. 9163323

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)

2 i/c
R.K. JAIN 1/2/2024

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Central Public Works Department
Office Memorandum
No. DG/CON/Construction 2023/07
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI Dated: 01.03.2024

Subject: Modifications in Clause 7 of GCC 2023 for Construction Works

The following amendments is made in the GCC 2023 for Construction Works :

Existing provision	Modified provision
Clause 7 Payment on intermediate certificate to be regarded as Advances No payment shall be made for work, estimated to cost Rs. twenty lacs or less till after the whole of the work shall have been completed and certificate of completion given. ..... fixed for the same by the Engineer-in-Charge.	**Clause 7 Payment on intermediate certificate to be regarded as Advances** No change.
The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved.	The contractor shall not be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved.
No provision	**However, to expedite the progress of work, Engineer-in-Charge, on the request of contractor, may make interim payment(s) even before the net payment limit specified in schedule 'F' is achieved. In such case(s) no interest / compensation shall be recoverable from contractor.** **Such payment by Engineer-in-Charge shall not be construed as waiver of limit specified in schedule 'F' for subsequent interim payment(s).**

01/03/2024
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, ... prescribed time limit.	**No Change**

This issues with the approval of DG CPWD.

01.03.2024
(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Const. e-file no. 9135972

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)

01/03/2024
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Central Public Works Department
Office Memorandum
No. DG/CON/Construction 2023/08
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI Dated: 05.03.2024

Subject: Modifications in Clause 19 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 19 Labour Laws to be complied by the Contractor	**Clause 19 Labour Laws to be complied by the Contractor**
The contractor shall comply with the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971.	**No change**
The contractor shall also obtain a valid licence under the said Act before the commencement of the work, and continue to have a valid licence until its completion.	**No change**
The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979.	**No change**
The contractor shall also abide by the provisions of the Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, amended by Amendment Act No. 35 of 2016 and thereafter time to time.	**No change.**
The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.	**No change**

05/03/2024
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

No provision	**The contractor shall also comply with the provisions of Sexual Harassment of Women at Workplace (Prevention Prohibition and Redressal) Act, 2013 and amendment thereafter time to time.**
Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.	Any failure to fulfil these requirements shall attract the penal provisions of **the relevant act and in** this contract
Clause 19 M **No Provision**	**Clause 19 M Sexual Harassment of Women at Workplace** **The contractor shall comply with all provision(s) and guideline(s) of Sexual Harassment of Women at Workplace (Prevention Prohibition and Redressal) Act, 2013 and amendment thereafter time to time or any other rules framed under any labour law affecting women worker(s).**

This issues with the approval of DG CPWD.

05.03.2024
(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023 e-file no. 9163323

To all the concerned officers of CPWD/PWD for information and necessary action please. (Through CPWD Website)

05/03/2024
R.K. JAIN
(EE (Contact)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

(1/2)

Central Public Works Department

Office Memorandum

No. DG/CON/Construction 2023/09

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 01.04.2024**

Subject: Modifications in Clause 1, 8 and 41 of GCC 2023 for Construction Works

The following amendments are made in the GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 1 Performance Guarantee Sl. No. (i) to (iv)	**Clause 1 Performance Guarantee** Sl. No. (i) to (iv) **No Change**
(v) On substantial Completion of any work which has been completed to such an extent that the intended purpose of the work is met and ready to use, then a provisional Completion certificate shall be recorded by the Engineer-in-Charge. The provisional certificate shall have appended with a list of outstanding balance item of work that need to be completed in accordance with the provisions of the contract.	(v) **As per requirement of the client or otherwise specified in the contract, part completion certificate may be issued for the building(s)/ infrastructure project for the part(s) which have been completed in all respect and are ready for use. However, statutory approvals, Completion drawing of various services, wherever required, shall be obtained before handing over of building(s)/ part(s) of the project. Scope of the completed part(s) shall be mentioned in such part completion certificate.**
This provisional completion certificate shall be recorded by the concerned Engineer- incharge with the approval of Superintending Engineer /Project Manager / Chief Engineer/ Chief Project Manager, if required. After recording of the provisional Completion Certificate for the work by the competent authority, the 80 % of performance guarantee shall be returned to the contractor, without any interest.	The **part completion** certificate shall **include** outstanding balance work that need to be completed in accordance with the provisions of the contract. This **part** completion certificate shall be recorded by the **authority as per contract value of work.** After recording of the **part** Completion Certificate for the work by the competent authority, the **proportionate amount of** 80% of performance guarantee shall be returned to the contractor, without any interest.
However in case of contracts involving Maintenance of building and services /any other work after construction of same building and services/ other work, then 40% of performance guarantee shall be returned to the contractor, without any interest after recording the provisional Completion certificate.	However in case of contracts involving Maintenance of building and services /any other work after construction of same building and services/ other work, then **proportionate amount of** 40% of performance guarantee shall be returned to the contractor, without any interest after recording the **part** Completion certificate.

01/04/2024
R.K. JAIN
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Clause 8 Completion Certificate Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued.	**Clause 8 Completion Certificate** Within ten days of the completion of the work **or on part completion of one or more building(s) out of independent building in a project or infrastructure project, as per requirement of client or otherwise specified in schedule F,** the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and shall furnish the contractor with a **part or** final **completion** certificate **as the case may be,** indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates.
But no final certificate ..... sum actually realized by the sale thereof.	No change.
Clause 41 **Release of Security deposit after labour clearance** The Security Deposit ..... security deposit and refund the balance amount.	**Clause 41** **Release of Security deposit after labour clearance** No change.
No Provision	**In case, if part completion certificate of work is recorded then security deposit shall be released only after recording final completion certificate of the work and after completion of defect liability period whichever is later or specified otherwise in the contract.**

This issues with the approval of DG CPWD.

01.04.2024
(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9163323

All CPWD and PWD officers for information and necessary action.(Through CPWD website)

01/04/2024
R.K. JAIN
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Central Public Works Department
Office Memorandum
No. DG/CON/Construction 2023/10
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD
NIRMAN BHAWAN, NEW DELHI **Dated:** 03-06-2024

Subject: Modifications in Clause 36 of GCC 2023 for Construction Works

The following amendment is made in the Clause 36 of GCC 2023 for Construction Works.

Existing provision	Modified provision
Clause 36 If relative working in CPWD then the contractor not allowed to tender The contractor shall not be *permitted* to tender for works in the CPWD circle *(Division in case of contractors of Horticulture/Nursery categories)* responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the *Superintending Engineer* and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working *with him in any capacity* or are subsequently employed by him and who are near relatives to any *Gazetted* Officer in the *C.P.W.D. or in the Ministry of Housing and Urban Affairs.* Any breach of this condition by the contractor would render him liable to be *removed from the approved list of contractors of this Department. If however the contractor is registered in any other department, he shall be debarred from tendering in CPWD for any breach of this condition.*	**Clause 36 If relative working in CPWD then the contractor is not allowed to participate in the tendering process** The contractor **(enlisted or non-enlisted in CPWD)** shall not be **allowed** to **participate in the** tender for work(s) in the CPWD **Zone**/circle **/Division/Sub-Division** responsible for award and**/or** execution of contract**(s)** in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the **Chief Engineer** and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working or are subsequently employed by him and who are near relatives to any Officer **working** in the **CPWD**. Any breach of this condition by the contractor would render him liable to be **debarred for a period upto two years from tendering in CPWD as decided by the accepting authority mentioned in Schedule F and his decision will be excepted from clause 25.**
NOTE: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.	No change.

This issues with the approval of DG, CPWD.

03.06.2024
(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Construction **e-file 9135972**

All CPWD and PWD officers for information and necessary action. (Through CPWD website)

R.K. JAIN
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Central Public Works Department
Office Memorandum
No. DG/CON/Construction 2023/10
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD
NIRMAN BHAWAN, NEW DELHI **Dated:** 03-06-2024

Subject: Modifications in Clause 36 of GCC 2023 for Construction Works

The following amendment is made in the Clause 36 of GCC 2023 for Construction Works.

Existing provision	Modified provision
Clause 36 If relative working in CPWD then the contractor not allowed to tender The contractor shall not be *permitted* to tender for works in the CPWD circle *(Division in case of contractors of Horticulture/Nursery categories)* responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the *Superintending Engineer* and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working *with him in any capacity* or are subsequently employed by him and who are near relatives to any *Gazetted* Officer in the *C.P.W.D. or in the Ministry of Housing and Urban Affairs.* Any breach of this condition by the contractor would render him liable to be *removed from the approved list of contractors of this Department. If however the contractor is registered in any other department, he shall be debarred from tendering in CPWD for any breach of this condition.*	**Clause 36 If relative working in CPWD then the contractor is not allowed to participate in the tendering process** The contractor **(enlisted or non-enlisted in CPWD)** shall not be **allowed** to **participate in the** tender for work(s) in the CPWD **Zone**/circle **/Division/Sub-Division** responsible for award and**/or** execution of contract**(s)** in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the **Chief Engineer** and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working or are subsequently employed by him and who are near relatives to any Officer **working** in the **CPWD**. Any breach of this condition by the contractor would render him liable to be **debarred for a period upto two years from tendering in CPWD as decided by the accepting authority mentioned in Schedule F and his decision will be excepted from clause 25.**
NOTE: By the term "near relatives" is meant wife, husband, parents and grandparents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.	No change.

This issues with the approval of DG, CPWD.

03.06.2024
(V.P. Sahu)
Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Construction **e-file 9135972**

All CPWD and PWD officers for information and necessary action. (Through CPWD website)

R.K. JAIN
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Central Public Works Department

Office Memorandum

No. DG/CON/Construction 2023/11

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated:** 03-06-2024

Subject: Additions in 'General Rules and Directions' of GCC 2023 for Construction Works

The following additions are made in GCC 2023 for Construction Works under 'General Rules and Directions':

Existing provision	Modified provision
General Rules and Directions Sl. No. 1 to 16	**General Rules and Directions** No Change
No Provision	**17. <u>Price Preference to SC/ST individual contractor for item rate/percentage rate tender</u>:** **Price preference in quoted item rate/percentage rate tender shall be applicable to the individual enlisted/non-enlisted SC/ST contractor as under:-** **i. For work(s) upto and equal to an estimated cost of Rs.2.70 lakh a price preference upto 5% (with reference to the lowest valid tender) may be allowed in favor of individual SC/ST enlisted/non-enlisted contractor. No earnest money is required in such case(s).** **ii. For work(s) beyond an estimated cost of Rs. 2.70 lakh and upto and equal to estimated cost of Rs. 6.20 lakh, the price preference upto 5% (with reference to the lowest valid tender) may be allowed in favour of individual enlisted SC/ST contractor. However, earnest money at a reduced rate of ½% may be accepted in such cases.** **iii. The price preference upto 5% (with reference to the lowest valid price bid) may be allowed in favour of individual SC/ST contractor. The above concession shall be allowed only after proper verification of the individual contractor's claim of belonging to SC/ST community.**
Schedule F **No Provision**	**Schedule F** **Price Preference to SC/ST individual contractor is valid upto ..... (date)**

This issues with the approval of DG CPWD.

03.06.2024

(V.P. Sahu)

Superintending Engineer (C&M)

Issued from file No. CSQ/CM/17(1)/2023/Construction **e-file 9163323**

All CPWD and PWD officers for information and necessary action.(Through CPWD website)

03/06/2024

R.K. JAIN

EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction 2023/12

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 09.10.2024**

Subject: Modifications in Clause 10A of GCC 2023 for Construction Works

The following amendment is made in the Clause 10A of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 10A Materials to be provided by the contractor The contractor shall ..... as specified in Schedule F.	**Clause 10A Materials to be provided by the contractor** **(i)** No Change
No Provision	**(ii) Maintenance of Material at Site (MAS) Register** **(a) MAS register of the key materials including Cement, Steel Bitumen, Paint, Primer, Distemper, Varnishes, Tile Adhesive, Admixture, Anti termite chemical Water proofing compound material and other items as required by Engineer-in-Charge, and shall be maintained as per proforma in Appendix-XX of GCC. All the entries in the MAS registers are made by the designated staff of the contractor and same is reviewed weekly by the authorized representative and fortnightly by the Engineer-in-Charge. However, contractor is responsible for maintenance and safe custody of MAS registers.**
(b) No provision	**(b)The self-attested copies of tax paid bill of all the materials entered in the MAS register shall be submitted by the contractor at the time of review by representative of Engineer-in-Charge. In case of any doubt, genuineness of the tax paid bills; it can be verified by the representative of the Engineer-in-Charge or the Engineer-in-Charge, however, onus of genuineness of tax paid bills rest with the contractor.**

09.10.24
R K SINGH
EE(Manual)

1/2

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Appendix-XX

REGISTER OF MATERIAL AT SITE (MAS)

1. **Division/Sub-division** .....
2. **Name of Work** .....
3. **Name of Article/Item** .....
4. **Estimated Requirements** .....

S. No.	Date of Receipts (Details of Challans/ Bills, Specific location wherePlants and Materials received/ Vehicle No.	Received from/ Issued to	Quantity Received	Date of issue	Specific location where Plants& Materials Displayed / Delivered / issued	Quantity Issued	Balance Quantity	Signature of authorized representative of contractor	Signature of authorized representative of Engineer-in-Charge/ AE/EE/	Remarks
1	2	3	4	5	6	7	8		9	10

This issues with the approval of DG, CPWD.

(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/ Construction/2024
e-file 9184028 (DFA//9301389)
केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

09.10.24
R K SINGH
EE(Manual)

2/2

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction 2023/12

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 09.10.2024**

Subject: Modifications in Clause 10A of GCC 2023 for Construction Works

The following amendment is made in the Clause 10A of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 10A Materials to be provided by the contractor The contractor shall ..... as specified in Schedule F.	**Clause 10A Materials to be provided by the contractor** **(i)** No Change
No Provision	**(ii) Maintenance of Material at Site (MAS) Register** **(a) MAS register of the key materials including Cement, Steel Bitumen, Paint, Primer, Distemper, Varnishes, Tile Adhesive, Admixture, Anti termite chemical Water proofing compound material and other items as required by Engineer-in-Charge, and shall be maintained as per proforma in Appendix-XX of GCC. All the entries in the MAS registers are made by the designated staff of the contractor and same is reviewed weekly by the authorized representative and fortnightly by the Engineer-in-Charge. However, contractor is responsible for maintenance and safe custody of MAS registers.**
(b) No provision	**(b)The self-attested copies of tax paid bill of all the materials entered in the MAS register shall be submitted by the contractor at the time of review by representative of Engineer-in-Charge. In case of any doubt, genuineness of the tax paid bills; it can be verified by the representative of the Engineer-in-Charge or the Engineer-in-Charge, however, onus of genuineness of tax paid bills rest with the contractor.**

09.10.24
R K SINGH
EE(Manual)

1/2

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Appendix-XX

REGISTER OF MATERIAL AT SITE (MAS)

1. **Division/Sub-division** .....
2. **Name of Work** .....
3. **Name of Article/Item** .....
4. **Estimated Requirements** .....

S. No.	Date of Receipts (Details of Challans/ Bills, Specific location wherePlants and Materials received/ Vehicle No.	Received from/ Issued to	Quantity Received	Date of issue	Specific location where Plants& Materials Displayed / Delivered / issued	Quantity Issued	Balance Quantity	Signature of authorized representative of contractor	Signature of authorized representative of Engineer-in-Charge/ AE/EE/	Remarks
1	2	3	4	5	6	7	8		9	10

This issues with the approval of DG, CPWD.

(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/ Construction/2024
e-file 9184028 (DFA//9301389)
केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

09.10.24
R K SINGH
EE(Manual)

2/2

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction-2023/13

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi Dated: 29.10.2024

Subject: Modifications in Conditions of Contract, Clause 10A of GCC Construction Works 2023.

Following amendments are made in the GCC Construction Works 2023:-

Existing Provision	Modified Provision
Clause 10A: Materials to be provided by the Contractor (i) The contractor shall, ... thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.	**No Change**
The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in schedule F.	**Field Laboratory:** The contractor shall at his own expense, setup a material testing lab equipped with the testing equipment as specified in schedule F at site for conducting routine field test.
No Provision	**External Laboratory: Letter for submitting sample(s) for testing of material shall be sent through e-mail to the Lab by authorized representative of Engineer-in-Charge or Engineer-in-Charge of the work along with name(s) of test(s) to be done on the material.** **The contractor shall collect the sample(s) from the site and submit it to the lab; make necessary payment for the testing charges. He will inform on the same day through email to authorized representative of Engineer-in-Charge and Engineer-in-Charge regarding submission of sample (s) and**

29.10.24

R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

No Provision	**payment made to the lab. If he either fails to collect or submit the sample(s) to the lab within 03 days or in time as prescribed in the specifications, whichever is earlier, the Engineer-in-Charge shall collect and submit the sample(s) and make necessary payment for testing charges to the lab. In such case, Engineer-in-Charge shall make recovery on account of collection and submission of sample(s) to the lab and paid testing charges etc. from the next R/A bill / Final bill of the contractor. This action of Engineer-in-Charge shall be final and binding.** **If the contractor fails three times in collection and/or submitting sample(s) and/or fails to make payment for testing charges, the contractor shall be debarred from tendering in CPWD for a period of two years.**
Sl. no. (ii) (a) and (b)	**No change**

This OM is applicable for all NITs uploaded after date of issue of this OM.

This is issued with the approval of DG CPWD.

29/10/24

(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2024/Construction e-file- 9184436 (DFA/9303295)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।

(केलोनिवि वेबसाईट के माध्यम से)

29.10.24

R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction 2023/14

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 03.01.2025**

Subject: Modifications in General Rules and Directions of GCC 2023 for Construction Works.

The following amendments are made in the General Rules and Directions of GCC 2023 for Construction Works:

Existing provision	Modified provision
Applicable for Item Rate Tender only (CPWD - 8) 4 The rates ..... rupee one.	**Applicable for Item Rate Tender only (CPWD - 8)** 4 No change
In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.	In case the lowest tendered amount (worked out on the basis of quoted rate of Individual items) of two or more contractors is same, then such lowest contractors may be asked to submit **revised price bid online using e-tender website,** quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, **on the revised template which has been sent to them by the Tender Inviting Authority (TIA)**, but the revised quoted rate of each item of schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.
If the revised ..... their tenders. In case of any ..... be forfeited. In case all ..... lowest contractors. Contractor ..... of the work.	No change
Applicable for Percentage Rate Tender only [CPWD- 7] 4B In case the lowest tendered amount (estimated cost ± amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub	**Applicable for Percentage Rate Tender only [CPWD- 7]** 4B In case the lowest tendered amount (estimated cost ± amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit **revised price bid online quoting** percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may

03.01.25
R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.	be **on the revised template which has been sent to them by the Tender Inviting Authority (TIA)**, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.
In case of any ..... be forfeited. If the revised ..... their tenders. In case all ..... process of the work.	No change

This issues with the approval of DG, CPWD.

3/1/25

(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/ Construction/2024
e-file 9185053 (DFA/9307326)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

03.01.25
R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/ Construction 2023/15
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 31.01.2025**

Subject: Modifications in Clause 7A of GCC 2023 for Construction Works.

The following amendments are made in the Clause 7A of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 7A No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.	**Clause 7A** **(a)** No Running Account Bill/**Final Bill** shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge. **(b) The following documents shall also be part of the bill submitted by the contractor (these documents shall be owned by the contractor) before making payment:-** **1. Details of person employed with date of their employment up to previous month.** **2. Documents of payment made to the employees directly into their bank accounts up to previous month.** **3. Documents of attendance through biometric attendance or other mode up to previous month.** **4. Documents of deposition of EPF and ESI deductions in the employee's accounts up to previous month.** **5. Any penalty imposed on the agency for delay in disbursing payment and deposition of EPF and ESI deductions in the employee's accounts up to previous month.** **6. Any other document(s) required as per statutory requirements and/or as directed by Engineer-in-Charge.** **(c) In case, any of the documents submitted by the contractor is found false/forged at a later date, action for debarment of contractor will be taken by the SE/CE concerned.**

This issues with the approval of DG, CPWD.

31/1/25

(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file 9184028 (DFA/9313089)
केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

31.1.25
R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Construction 2023/16
ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 10.02.2025**

Subject: Modifications in Clauses 7, 8, 9 and Schedule F of clause 8 of GCC 2023 for Construction Works.

The following amendments are made in the Clauses 7, 8, 9 and Schedule F of clause 8 of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 7 Existing provisions No provision	**Clause 7** No change **In case of correction / rejection / short documents, it will be mandatory for Engineer-in- Charge to give recorded reasons for correction / rejection / submission of additional documents within seven days after submission of running bill by the contractor.**
Clause 8 Completion Certificate (Issued vide OM No. DG/Construction-2023/09 dated 01.04.2024) Within ten days of the completion of the work or on part completion of one or more building(s) out of independent building in a project or infrastructure project, as per requirement of client or otherwise specified in schedule F, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice, the Engineer-in-Charge shall inspect the work and shall furnish the contractor with a part or final completion certificate as the case may be, indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates.	**Clause 8 Completion Certificate** Within ten days of the completion of the work or on part completion of one or more building(s) out of independent building in a project or infrastructure project, as per requirement of client or otherwise specified in schedule F, the contractor shall give notice of such completion to the Engineer-in-Charge and **the Engineer-in-Charge, within seven days of receipt of intimation of completion from contractor will inspect the work and satisfy himself about completion of part /full work, then intimate to the concerned authorities as mentioned in Schedule F for inspection and issuance of part / final completion certificate. The concerned authorities will inspect the work and issue part/final completion certificate within** thirty days of the receipt of such **intimation.** The Engineer-in-Charge shall furnish **to** the contractor a part / final completion certificate as the case may be, indicating defects (a) to

10.2.25
R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

	be rectified by the contractor and/or (b) for which payment will be made at reduced rates.
But no final certificate ..... sum actually realized by the sale thereof.	**No change.**
Clause 9 Payment of Final Bill The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period of three months the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Asstt. Engineer, complete with account of materials issued by the Department and dismantled materials. 10.2.25 R K SINGH EE(Manual)	**Clause 9 Payment of Final Bill** i. The final bill shall be submitted by the contractor **to the Engineer-in-Charge** in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final **completion** certificate furnished by the Engineer-in-Charge whichever is earlier. **At the time of submission of the final bill, receipt will be given by the O/o Engineer-in-Charge.** ii. **In case of correction / rejection / short documents, it will be mandatory for Engineer-in- Charge to give recorded reasons for correction / rejection / submission of additional documents within fifteen days after submission of final measurement and/or final bill by the contractor.** iii. **Final bill will be accepted with all pre-requisite documents such as sanctioned copies of extra items and deviation in quantities, escalation statements, recovery statement, theoretical statement, final completion certificate, final extension of time case, mandatory tests statement, dismantled materials account and other documents as mentioned in clause 7A etc.** iv. **An undertaking alongwith the final bill will be submitted by the contractor that "I / we hereby undertake that all the measurements/claims payable under this contract have been included in the final bill and will not submit any other bill/claims in future under this agreement thereafter".** v. No further claims shall be **entertained from** the contractor after submission of the final bill and these shall be deemed to have been waived **off** and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer in charge will, be made within the

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

If the final bill is submitted by the contractor within the period specified above and delay in payment of final bills is made by the department after prescribed time limit, a simple interest @ 5 % (five percent) per annum shall be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor is found to be in order.	period of three months. The period **of three months will be** reckoned from the date of receipt of the bill **in complete shape after necessary corrections / additional documents,** by the Engineer-in-Charge. vi. **In case of foreclosure / determination of contract, if the contractor fails to submit the EOT case, final measurement /bills within 30 days of foreclosure/ determination, the EOT case and final bill will be prepared and decided by the department. The final bill shall only be paid after withholding amount equivalent to maximum compensation to be levied on the contractor.** vii. If the final bill, **in complete shape,** is submitted by the contractor within the period specified above and delay in payment of final bill is made by the department after prescribed time limit, a simple interest @5% (five percent) per annum **may** be paid to the contractor from the date of expiry of prescribed time limit, provided the final bill submitted by the contractor **contains all the documents as mentioned in para – (iii) & (iv) above.** .
Schedule F **Clause 8** No Provision	**Schedule F** **Clause 8** **Competent Authorities to inspect and issue part / final completion certificate .....** **(To be filled by NIT approving authority).**

This issues with the approval of DG, CPWD.

10/2/25

(दिनेश कुमार उज्जैनिया)
अधीक्षण अभियंता (सी.एंड एम.)

Issued from file No. CSQ/CM/17(1)/2025/Construction
e-file 9190123 (DFA/9315615)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

10.2.25
R.K. SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/ Construction 2023/17

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 03.03.2025**

Subject: Modifications in Clause 14 of GCC 2023 for Construction Works 2023.

The following amendments are made in the Clause 14 of GCC 2023 for Construction Works 2023:

Existing provision	Modified provision
Clause 14 Carrying out part work at risk & cost of contractor If contractor: (iii) The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to : (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.	**Clause 14 Carrying out part work at risk & cost of contractor** If contractor: (iii) The Engineer- in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Government, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to : (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or (b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor. **The contractor, from whom a part work / part incomplete work of any item(s), has been taken out of his hands, shall not be allowed to participate in the tendering/quotation process of part work / part incomplete work of any item(s).**

This issues with the approval of DG, CPWD.

03.03.25

(आर. के. सिंह)

कार्यपालक अभियन्ता (एम.)

Issued from file No. CSQ/CM/17(1)/2023/Construction e-file-9184028 (DFA/9319526)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।

(केलोनिवि वेबसाईट के माध्यम से)

R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/ Construction 2023/18

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

NIRMAN BHAWAN, NEW DELHI **Dated: 16.06.2025**

Subject: Modifications in Clause 25.2(b) and 25.6 of GCC 2023 for Construction Works.

The following amendments are made in the Clause 25.2(b) and 25.6 of GCC 2023 for Construction Works:

Existing provision	Modified provision
Clause 25.2 **(b) Qualification of Arbitrators**: It is a term of this contract that each member of the Arbitral Tribunal shall be Graduate Engineer with experience in execution of public works engineering contracts, and he should have worked earlier at a level not lower than the Chief Engineer (equivalent to level of Joint Secretary to the Government of India). The aforesaid educational qualification and work experience shall be mandatory for appointment as Arbitrator. The age of Arbitrator at the time of appointment shall not exceed 75 years. An Arbitrator may be appointed notwithstanding the total number of active arbitration cases with him.	**Clause 25.2** **(b) Qualification of Arbitrators**: It is a term of this contract that each member of the Arbitral Tribunal shall be Graduate Engineer **(in Civil or Electrical or Mechanical Engineering)** with experience in execution of public works engineering contracts and he should have worked earlier at a level not lower than the SAG **(Level 14 of 7th CPC)** of the Government of India). The aforesaid educational qualification and work experience shall be mandatory for appointment as Arbitrator. The age of Arbitrator at the time of appointment shall not exceed **70 years**.
Clause 25.6 **Fee payable to Arbitrator(s):** The fee payable to the arbitral tribunal shall be as per CPWD OM No.2/2006/SE(TLC)/ CSQ/137 dated 19.11.2019 (or latest amendment), and shall be shared equally by both the parties.	**Clause 25.6** **Fee payable to Arbitrator(s) for arbitration cases, shall be as per the fee given in the fourth schedule of the Arbitration & Conciliation Act, 1996** (or latest amendment), and shall be shared equally by both the parties.

This issues with the approval of DG, CPWD.

16/06/2025

(चन्द्र पाल)
अधीक्षण अभियंता (सी. एंड एम.)

Issued from file No. CSQ/CM/17(1)/2025 / Construction e-file 9135700 (TLC File)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु।
(केलोनिवि वेबसाईट के माध्यम से)

16.06.25
R K SINGH
EE(Manual)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Construction-2023/19

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi Dated: 06.11.2025

Subject: Modification of Clause 19L of GCC-2023 for Construction Works.

The clause 19L in GCC-2023 for Construction Works is being modified:

Existing Provision	Modified Provision
Clause 19 L: Contribution of EPF and ESI The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis. The verification of deployment labour will be done through biometric attendance system or any other suitable method by the Engineer in Charge. 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 provided same are in order	**Clause 19 L: Contribution of EPF and ESI** **It will be mandatory for all the agencies to register with ESI and EPFO departments within 30 days of the award of the work unless exempted by the provisions of ESI and / or EPFO and as amended time to time.** The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by the contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis. The verification of deploy**ed** labour will be done through biometric attendance system or any other suitable method by the Engineer in Charge. **The agency shall submit an affidavit on a stamp paper of Rs. 100 that the employees were engaged fully and exclusively on the work for which the claim is being made.** 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 provided same are in order

This is issued with the approval of DG CPWD.

06.11.2025

(चन्द्र पाल)

अधीक्षण अभियंता (सी.ए.डी. एम.)

Chander Pal, SE (C&M)

Issued from file No. CSQ/CM/17(1)/2024/ Construction **e-file 9195855 (DFA/9350595)**

के.लो.नि.वि. तथा लो.नि.वि. दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु (के.लो.नि.वि.वेबसाईट के माध्यम से)।

6/11/25

D.P. Jindal
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग

कार्यालय ज्ञापन

No. DG/CON/Misc/46

ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD

Nirman Bhawan, New Delhi Dated:18.11.2025

Subject: Advisory on release of security deposit.

There are some instances of non-adherence to mandatory provisions of withholding the dues from the same contract or other contracts, in the cases when any amount is due to be recovered from the contractor before releasing of the security deposit and other dues payable to the contractor as per the provisions of the GCCs.

The relevant provisions exist in clause 29 of the CPWD GCC Construction Works 2023 and GCC Maintenance Works 2023. The same provisions exist in Clause 27 and Clause 28 of CPWD GCC EPC Projects 2024 in respect of deductions / recoveries of the dues from the contractors before releasing of the security deposits and other dues, by the Engineer- in-charge.

All concerned field units are advised to strictly adhere to the above provisions of GCCs.

This issues with the approval of competent authority.

18.11.2025

(चन्द्र पाल)

अधीक्षण अभियन्ता (सी0 एंड एम0)

चन्द्र पाल, अधी. अभि. (सी एण्ड एम.)
Chander Pal, SE (C&M)

Issued from file No. CSQ/CM/17(1)/2025/GCC

To,

All the officers of CPWD and PWD Delhi for information and necessary action please. (Through CPWD website)

18/11/25

D.P. Jindal
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

केन्द्रीय लोक निर्माण विभाग
कार्यालय ज्ञापन

No. DG/CON/Construction 2023/20

ISSUED BY AUTHORITY OF DIRECTOR GENERAL, CPWD

VIDYUT BHAWAN, NEW DELHI **Dated: 27.02.2026**

Subject: Modifications in General Rules & Directions, Clause 1 and Schedule E of GCC 2023 Construction Works

The following modifications are made in the General Rules & Directions, Clause 1 and Schedule E of GCC 2023 Construction Works.

Existing provision	Modified provision
General Rules & Directions 11 (i) The Contractor whose tender is accepted, will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in Schedule 'E' and within the period specified in Schedule F.	**General Rules & Directions** 11 (i) The Contractor whose tender is accepted, will be required to furnish performance guarantee as mentioned in Schedule 'E' and within the period specified in Schedule F. .....
Clause 1 **Performance Guarantee** (i) The contractor shall submit an irrevocable Performance Guarantee at specified percentage of the tendered amount as mentioned in Schedule 'E', in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance.	**Clause 1** **Performance Guarantee** (i) The contractor shall submit an irrevocable Performance Guarantee as mentioned in Schedule 'E', in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance. .....
Sl. No. (ii) to (v)	No change
SCHEDULE 'E' Reference to General Conditions of contract Sl. No. (i)	**SCHEDULE 'E'** Reference to General Conditions of contract No change

27/2/26
EE(C)
D.P. Jindal
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

(ii) Performance Guarantee : 5% of tendered value. Sl. No. (iii)	(ii) Performance Guarantee : **(a)** 5% of tendered value **or Estimated Cost Put to Tender (ECPT) (whichever is higher)**. **(b) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.** No change

This issues with the approval of DG, CPWD.

27.02.2026

(चन्द्र पाल)
अधीक्षण अभियंता (सी.एंड एम.)
Chander Pal, SE (C&M)

Issued from file No. CSQ/CM/17(1)/2026/Construction e-file 9212995 (DFA/ 9365660)

केलोनिवि तथा लोनिवि दिल्ली के सभी अधिकारियों को आवश्यक सूचना एवं कार्यवाही हेतु। (केलोनिवि वेबसाईट के माध्यम से)

27/2/26
EE(C)
D.P. Jindal
EE (Contract)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

Schedule of Quantities

Name of Work: "Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa"						
Sub Head : Electrical Work						
S. No.	**Description of Item**	**Qty**	**Unit**	**Rate (Rs.)**	**Amount (Rs.)**	**Remarks**
	HT Side Work					
1	Supplying of 33KV, 3 Core, 185 Sq.mm Aluminium Conductor, screened, XLPE insulated, galvanized round strip armoured, PVC sheathed cable Type A2XWY, FR, conforming to IS: 7098/Part-2 as amended up to date, from the place of manufacturing up to the site location.	180.00	Mtr	3,440.00	619,200.00	GED Rate
2	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge. i) Hard Rock (blasting prohibited)	75.60	Cum	1,589.00	120,128.40	DSR Civil 2023, 2.7.3 i/c CI & GST Factor
3	Filling available excavated earth (excluding rock in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50m and for all lift	75.60	Cum	217.00	16,405.20	DSR Civil 2023, 2.25 i/c CI & GST Factor
4	Laying of one number XLPE power cable of 33 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.					
4.1	Above 120 sqmm and upto 400 sqmm	15.00	Mtr	177.00	2,655.00	DSR E&M 2025 22.7.2
5	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required. 300 mm dia	20.00	Mtr	1,293.00	25,860.00	DSR E&M 2025 15.14.4
6	Supplying and making HT cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	3.00	Nos	683.00	2,049.00	DSR E&M 2025 10.9
7	Supply and laying of Kaddapa of size 600 mm length × 250 mm width × 37 mm thick as a protective cover as well as partitioning for underground cables.	267.00	Nos	261.00	69,687.00	GED Rate
8	River sand (except in sandy soil) for cushioning of 33 KV XLPE underground cable, as per technical specifications & as per direction of the Engineer-in-charge.	6.40	Cum	2,170.00	13,888.00	GED Rate
9	Supply & making of 33KV Indoor 3 × 185 Sq.mm, anti-fog, heat shrinkable type end termination kit complete with all accessories of reputed make preferably Raychem jointing kit, suitable for cable as per technical specifications. The kit shall have total creepage distance of 31 mm per KV and protected creepage distance of not more than 50% of the total creepage distance, suitable for heavily polluted atmospheric conditions for connecting to the new outdoor breaker panel complete by qualified jointers.	9.00	Each	22,330.00	200,970.00	GED Rate
10	33KV Outdoor 3 x 185 Sq.mm, anti-fog, Heat shrinkable type end termination kit complete with all accessories of reputed make preferably Raychem jointing kit, suitable for cable as per technical specifications. The kit shall have total creepage distance of 31 mm per KV and protected creepage distance of not more than 50% of the total creepage distance, suitable for heavily polluted atmospheric	4.00	Each	33,294.00	133,176.00	GED Rate

	conditions for connecting to the new outdoor breaker panel complete by qualified jointers.					
11	Supply & making MS Beams (ISMB) of size 200 x 100 mm (25.4 Kg per Mtr x 5.0 Mtr length = 127 Kgs x 2 = 254 kg) (SAIL, TATA, VIZAG & using electrodes of Ador or ESAB or Deh Secheron make only) including cutting, hoisting, fixing in position and applying a priming coat of red lead paint. (Cost of erection & Excavation is included in Cost of Material).	2.54	Qtl	13,658.00	34,691.32	GED Rate
12	Supply, Erection, Testing and Commissioning of HDGI Structural Material - Channel	506.00	Kg	216.00	109,296.00	GED Rate
13	Supply, Erection, Testing & Commissioning of HDGI Bolt, Nut & Washer of size 16 mm x 100 mm or as required conforming to relevant IS.	10.00	Kg	258.00	2,580.00	GED Rate
14	Supply, Erection, Testing & Commissioning HDGI Cross arms clamps L.A. for 90 Lb/yd for Cross-arm and bracing Channels (Dimensions/specifications as per drawing no. CEE/E-515).	6.00	Nos	559.00	3,354.00	GED Rate
15	Supply, Erection, Testing & Commissioning HDGI Stay Clamps L.A. for 90 Lb/yd for Cross-Arm Channel Support (Dimensions/specifications as per drawing no. CEE/E-508).	8.00	Pair	783.00	6,264.00	GED Rate
16	Supply, Erection, Testing & Commissioning Heavy duty, HDGI Class-B pipe of inner diameter 150 mm (alongwith HDGI bends wherever required) for crossing of Nullahs and culverts etc., as per technical specifications.	10.00	Mtr	1,863.00	18,630.00	GED Rate
17	Supply, Erection, Testing & Commissioning 36KV, 25KA, 800A Double Break GOAB Switch along with connectors suitable for ACSR Racoon conductor (wedge type paddle of 800 ampacity & bolted C-Wedge Connectors) without earth switch.	3.00	Set	154,694.00	464,082.00	GED Rate
18	Supply, Erection, Testing & Commissioning 30KV, 10KA Station type, Gapless Lightning Arrestors class-3.	6.00	Nos	27,937.00	167,622.00	GED Rate
19	Supply, Installation, Testing and Commissioning of 33KV, 4 way, 630 Amps, 25KA/1Sec, SF6 insulated extensible, **outdoor RMU,** comprising of 2 Vacuum Circuit Breaker motorised & 2 Load Break Switch, free standing type for bottom entry 3 core cable of size 185/400 Sq.mm. with overcurrent earth fault relay. Master trip with remote operation & SCADA compatibility as per specification and approved make of Goa Electricity Department. RMU shall be equipped with QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc	1.00	Nos	33,33,500.00	33,33,500.00	NDSR
20	Supply, Installation, Testing and Commissioning of 33KV, 3Ph. 4 Wire **Metering Cubicle** complete having 3 Nos. of Single ratio 33KV, 0.5s class or better, resin cast copper wound single phase current transformer for metering of ratio: 25/5 Amps, 3 Nos. of Single ratio 36KV, 0.5 class or better, resin cast copper wound single phase potential transformer for metering of ratio: 33000/110V duly certified by Goa Electricity Department, DLMS/COSEM Electronic Energy Meter – 3Ph., 4W, 110V-5Amps, Cat-C, 2G AMR Modem duly integrated in Meter Data Management for automatic meter reading. Space Heaters, 3 side Shade, Support structure etc. conforming GED Standards.	2.00	Nos	428,077.00	856,154.00	GED Rate
21	Supply, Installation, Testing and Commissioning "Insulkote" insulation enhancement coating on busbar and cable termination, Anti-Tracking Paint coating on CT's & PT's and providing gasket and other	2.00	Nos	25,000.00	50,000.00	GED Rate

	sealing arrangement for 33KV Main metering cubicle on site.					
22	Supply, Installation, Testing and Commissioning of **33KV Indoor VCB Panel,** rated current of 1250A EDO type with fixed and moving contact, 8 NO+8NC auxiliary contacts (24V DC) having Short circuit rating 26.3 KA for 3 sec,Shunt coil - 110 VDC / Closing coil voltage 110 V DC, with a rated capacity of Battery charger and maintenance free batteries for a min backup of 20 mins incl cabling from battery charger to VCB Panel, spring charging motor 230V AC, equipped with required rated capacity Potential transformer of Burden 50 VA, Insulation class E, Configuration - Star / Star Accuracy Class- Core 1- 0.5, Core 2 - 3P,Voltage Factor : 1.2 Cont & 1.5 for 30 Secs and Current transformer Ratio- 75 - 150/5 -5 A Burden- 10 + 10 VA No. of cores- 02, Accuracy Class- core 1 -0.5 Core 2- 5P10. Protection relay A22F O/C AND E/F Relay, Master Trip Relay, Aux Relay for Transformer faults RXM, Metering: Digital Ammeter with ASS, Digital Voltmeter with VSS , 12 Window Annunciator with hooter with Communication Ethernet/RS485/SNMP port open protocol for BMS integration, Control Section: Breaker control, Local/Remote selector switch, RYB LED indicating lamps displaying voltage on it, Breaker control indicating lamps displaying ON/OFF/Trip/spring charge/test/service position, power pack (230V AC/110 V DC, 100 Watts WITH 15 MIN. BACK-UP), space heater, Aluminium busbar of rated size and capacity including insulator supports having spacing as per norms and necessary required control wiring,MCB's as per technical specifications etc complete in all respects as per IS/IEC 62271 standard amended up to date. The VCB Panel should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc	1.00	No	11,44,520.00	11,44,520.00	NDSR 1
	LT Side					
23	Supply, installation, testing and commissioning of **1000 kVA capacity (continuous loading)** BEE 5 Star rated (Corresponding Level as per BIS amended upto date of receipt of tender), 33/0.433 KV step down, 3 Phase, 50 Hz, Dyn 11 vector group, ONAN (Oil Natural Air Natural) **copper wound transformer** (Electrolytic grade 99.9% pure copper, Core made of first grade Cold Rolled Grain Oriented (CRGO) Core grade MOH or better, suitable for out door/indoor applications with On Load Tap Changer (OLTC) on HV side having AVR relay and Remote Tap Changer Control (RTCC) for automatic sensing of incoming voltage with Communication Ethernet/RS485/SNMP port open protocol for BMS integration as per approved by Engineer in charge, automatic operation of OLTC and facility for remote and manual operation of OLTC HV side in range of +5% to -15% in steps of 2.5%, having cable end boxes on HV side suitable for 3x400 sq.mm XLPE cable of 33 KV grade, including bus trunking arrangement on LV side including supplying and laying of copper conductor multicore control cable from transformer to HT breaker/panel for safety tripping, complete with all accessories and safety provisions as per relevant IS Code including first filling of filtered dehydrated oil, i/c supplying and grouting of suitable M.S. Channel with all accessories and transformer shall be confirming to IS : 2026 (Part 1 to Part 5), IS : 1180 and as per CPWD	1.00	each	28,11,630.00	28,11,630.00	DSR E&M 2025 24.3.3

	specifications complete in all respects etc as required at site. The maximum flux density in any part of the core and yoke at rated voltage and frequency shall be such that the flux density with + 12.5 percent combined voltage and frequency variation from rated voltage and frequency does not exceed 1.9 Tesla. The permissible temperature-rise shall not exceed 35 °C for oil and 40 °C up to 200 KVA and 40 °C for oil and 45 °C for above 200 KVA for winding. Inside of tank shall be painted with varnish or liquid resistant paint. For external surfaces one coat of thermos setting powder paint or one coat of epoxy primer followed by two coats of polyurethane base paint shall be used. IS:1180 (Part 3) shall be referred to for paint thickness for normal to medium corrosive atmosphere. For highly polluted atmosphere and special application external paint work shall be as per direction of Engineer-in-Charge. Design ambient condition: a) air temperature 50 degree C, b) Relative Humidity 90 % Max, c) Seismic Zone as per location of site, d) Altitude as per location/site. Noise level Shall not exceed limits as per NEMA TR-1 with all accessories running measured as per IEC 551 / NEMA standard. The transformer should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc. Marking Each transformer shall be provided with rating plate made of anodized aluminium/ stainless steel material securely fixed on the outer body, easily accessible, as per IS: 1180 Part-3. The entries on the rating plate shall be indelibly marked. Fitting and Accessories : The following fittings shall be provided:- a) Two earthing terminals with the earthing symbol b) Oil level gauge indicating oil level at minimum, 30°C and maximum operating temperature; c) Air release device (for non-sealed type transformers) d) Rating and terminal marking plates; e) Silica gel breather f) Drain-cum-sampling valve (¾″ nominal size thread, IS 554) preferably steel with plug for three phase transformers; g) Thermometer pocket with cap; h) Oil filling holes having (1¼″ nominal size thread) with cover (for sealed type transformers without conservator); i) Lifting lugs for the complete transformer as well as for core and winding assembly; j) Pressure relief device or explosion vent above 200 kVA; k) One filter valve on the upper side of the tank (for transformers above 200 kVA); l) Unidirectional flat rollers (for transformers above 200 kVA); m) Inspection hole (for transformers above 200 kVA); n) HV side neutral grounding strip (where one of the HV bushing terminal is connected to earth); o) Buchholz relay for transformers above 800 kVA. p) Arcing horns or suitable rating lightning arrestors for HT side – 3 Nos. q) Bird guard; r) Oil temperature indicator and winding temperature indicators for transformers above 200 kVA with suitable tripping mechanism above permissible limit s) Jacking pads (for transformer above 1 600 kVA); t) Additional Neutral separately brought out on bushing for earthing. u) Magnetic oil level gauge (for transformer above 1600 kVA) with low oil level alarm contact; v) Non return valve (for conducting pressure test); w) Pressure relief device or explosion vent x). Monogram Plate y) Inspection cover z). Detachable type radiators with top and bottom shutoff valve. aa) Oil Conservator with Oil level indicator, minimum level marking and					

	drain plug for all transformers of capacity 50 KVA and above. bb) Necessary hardware, clamps, lugs etc. for termination on HV/MV etc. for all transformers. The Transformer should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc					
24	Supply, Installation, Testing and Commissioning of **Indoor PCC Panel** with floor mounting dust and vermin proof fully compartmentalized indoor type cubical fabricated from 1.6 mm thick CRCA sheet, front doors hinged type with properly fitted gasket having1600A rated capacity Aluminium bus bar for phase and neutral, earth bus bar Incoming side- 1600A Four Pole, EDO type 50 KA ACB with UV relay, ELR, LSIG protection, SPD (Type 1+2), - 2 Nos (Having Electrical and Mechanical interlocking between each other), AVR bypass switch of 1600A rated current. The PCC panel must be compatible with the SCADA. Outgoing side- 800A 50 KA TP EDO type ACB with LSIG protection-1 No, 630A 36 KA TP MCCB Thermal Magnetic based with OL/SC protection-1 No 400A 36 KA TP MCCB, Thermal Magnetic based with OL/SC protection-2 No, 250A 36kA TP MCCB,Thermal Magnetic based with OL/SC protection-2 No , MCCB of SC current capability (Ics=100% Icu) shall be used. All incoming and outgoing feeders must have Digital LED indicating lamps showing supply voltage, spring charged (incomer), RYB, ON, OFF, Trip functions, Digital MFM with CL 0.5 Accuracy, RS 485 port, LT CT of respective rated capacity, CL 0.5 accuracy, Rated Burden 15VA/5VA, necessary spreaders,seperators, insulator supports, name plates, safety signages, ventilation louver with dust guard etc. as per technical specifications etc complete in all respects as per IEC 60439 standard. The PCC Panel should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc	1.00	No	16,03,030.00	16,03,030.00	NDSR 2
25	Supply, Installation, testing and commissioning of **280 KVAR Automatic Power Factor Correction (APFC) panel**, indoor type floor mounted free standing totally enclosed, extendable, IP 42, of following capacity for 3 phase, 415 V + 10 %, 50 Hz AC System for Ambient temperature -5°C to +40°C, fabricated in compartmentalised designed made of CRCA sheet steel of 2.0mm thick for framework & covers, 3 mm thick for gland plate i/c cleaning & finishing complete with 9 tank process for powder coated of approved shade (RAL 7032-Siemens Gray or as approved by Engineer-in-Charge), having front section (switch gear and control accessories) and rear section capacitor, front and rear access, having suitable current carrying capacity, extensible TPN Aluminium alloy bus bar of high conductivity, DMC/SMC bus bar supports, bottom base channel of MS Section, fabrication shall be done in transportable section, entire panel shall have common copper earth bar of minimum size of 25mm x 5mm with 2 nos. earth studs, the earth terminals provided on the body of capacitor bank shall also be bonded to the main capacitor panel earth bus with 2 nos. 8 SWG or 6 SWG GI earth wires/ equivalent size of copper conductor cable, forced ventilation for maintaining temperature rise not more than 5°C from ambient,	1.00	No	416,404.00	416,404.00	NDSR 3

	interconnections, connections with heavy duty 525 V ISI marked Impregnated MPP(Metalized Polypropylene) Capacitor (IS 13340 Part -1 & 2) APFC Panel shall be in compliance with IS :16636 & CPWD Specifications etc. as per below details. (A) Incomers Suitable capacity MCCB Microprocessor base with O/C, S/C, E/L release of TPN 50KA breaking capacity (Ics=Icu), ON, OFF, Trip, R, Y, B - LED Indicating Lamp set along with required Instruments and accessories with extended rotary handle and door interlocking arrangement. Current rating of the Incomer in ampere shall be APFC Panel rating in KVAR x 1.4 x 1.5 or Nearest higher standards rating. (B) Instruments & Indications i) 3-Phase current sensing APFC microprocessor relay/controller , advance 8/12 stages (8 stages for capacity below 100 KVAR and 12 stages 100 KVAR & above) with Communication Ethernet/RS485/SNMP port open protocol for BMS integration as per approved by Engineering in charge and having display of Phase wise V, A, PF, Cos-Phi, Kw, KVA, KVAR, THD-V , THD-I, harmonics up to 31 level. 3nos of dual core CT's accuracy class 1, 15VA at incomer of PCC Panel for APFC relay. ii) Auto Manual Selector switch, auxiliary contactors with timer for delay in manual mode. iii) Digital Multi function meter with LED Display for V, A, PF, KW, KVA, KVAR, THD-V & I, Frequency. iv) Suitable rating control transformer shall be provided for control and indication circuit's) All components like control transformer, meter, relay and indicating lamp shall be protected by using suitable rating individual MCB's. vi) Wiring of the control circuit shall be done by using 2.5 sq mm, FRLS/HFFR 1100 V grade, PVC insulated multi stranded copper control wire. (C) Bus Bars 1.3 Amp per Sq.mm, TPN, Electrolytic grade Aluminium bus bar of capacity 1.25 times of incomer rating as per CPWD specification. (D) Outgoings (APFC Section) Selection of the capacitors combinations shall be for continuous rating and each capacitor bank shall have suitable capacity Heavy Duty ISI Marked Capacitor, capacitor duty contactor, the capacitor shall be mounted on channel with base of perforated M S Powder coated sheet, connections inter connections etc. and other features as per CPWD Specifications and relevant IS Code having following: (i) Capacitor bank ratings & stages shall be as per the technical specifications sheet of NIT. (ii) Capacitor will be MPP self healing type with discharge resistor, pressure release mechanism. (iii) Since Capacitor Voltage is 525 Volts, thus higher KVAR has to be considered to get rated output at 415 Volts. (iv) Note: (Technical specifications sheet for selection of the capacitors combinations shall be provided by the Engineer-in-Charge with due consideration of number of capacitors i.e. 1 KVAR, 2 KVAR, 3 KVAR, 5 KVAR, 10 KVAR for smooth correction).The APFC Panel should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc					

26	Supply, Installation, Testing and Commissioning of **1000 KVA oil cooled (ONAN) indoor Auto Voltage regulator** on LT supply side with a voltage range of 360 V to 470 V stabilization having CRGO M4 grade core, Electrolyte grade copper winding with purity of 99.99%, IP 42 protected, 'A' class insulation of Oil, output voltage with an accuracy of +/- 1% from No load to Full load, Rotary type Regulator based Servo Voltage Stabilizer should be suitable to withstand 50% over Load for 30 seconds & 75% overload for 10 Seconds of voltage, Epoxy type or powder coating suitable for corrosive environment colour as approved by Engineer-in-Charge, Control Panel, metering, LED indicators displaying voltage for the function of voltage RYB, voltage high/low/trip with necessary rated protection switchgear, Digital Multifunction meter with Communication Ethernet/RS485/SNMP port open protocol for BMS integration etc. as per technical specifications complete in all respects as per IS/IEC 9815 standard amended up to date. The AVR should have QR code which should contain drawing, test report OEM manual, Geo- Tag of manufacturing location etc	1.00	No	20,05,369.00	20,05,369.00	NDSR 4
27	Design, supply, installation, testing and commissioning of a complete SCADA system for substation automation, covering integration of RMU, Transformer, RTCC, VCB, ACB, AVR, APFC, PCC panel, MFMs and all associated equipment. The scope shall include PLC/RTU-based automation system (Siemens/L&T or equivalent), SCADA software with HMI, data acquisition, control, alarm management, trending and reporting, supporting IEC 61850 and open communication protocols for seamless integration with IEDs and BMS. The system shall provide real-time monitoring of all equipments & switchgear, remote control with interlocking of VCB, RTCC, AVR & ACB etc, shall be provided with proper interlocking logic to ensure operational safety and reliability, event logging, diagnostics, and reporting features. The scope also includes complete testing (I/O checks, communication, functional logic, SAT) and final commissioning, ensuring reliable, safe, and fully integrated operation in compliance with relevant IEC standards and industrial practices, complete in all respects.	1.00	Job	860,000.00	860,000.00	NDSR 5
28	Supplying, drawing, Testing and commissioning of Cat 6A UTP 4 pair, 23 AWG solid copper cable in existing conduit/ on surface, U/FTP, LSZH, NonPlenum, Horizontal (solid) Cable suitable for high speed data networking application supporting upto 10Gbps over a 100 meter channel. The 4 Unshielded Twisted Pairs (UTP) cable with Color coded insulation for easy identification should have FLAME PROPERTIES i.e. Flammability Test - IEC 60332-1, Smoke Density - IEC 61034, LSZH standards compliance: ANSI/TIA-568 C.2, ISO/IEC 11801, IEEE 802.3an, RoHS. Delay Skew should be < 45NS. The outer Cable Diameter should be 7.5 + 2 mm. Cable should have been tested and verified by UL/ ETL etc. complete as required.	500.00	Mtr	74.00	37,000.00	DSR E&M 2025, i-39.18.1

29	Supply, Installation, Testing and Commissioning of a **Server PC** for SCADA with the following minimum specifications: Processor: Intel Core i7, minimum 8 cores, base clock speed 3.0 GHz or higher, 64-bit architecture Memory (RAM): Minimum 8 GB DDR4 (expandable) Storage: Minimum 1 TB HDD (7200 RPM or better) Optical Drive: DVD-ROM Drive Network Interface: Minimum 2 Nos. NICs with at least 4 ports in total Graphics: Dedicated graphics card with minimum 1 GB VRAM Ports: Minimum 2 Nos. USB ports (preferably USB 3.0 or higher) Monitor: 24-inch Full HD LED monitor Input Devices: Standard keyboard and optical mouse (3-button with scroll wheel) Server PC should be equipped with following software: MS Office 2010 or better 32 bit only., Windows 7/8/8.1/10, 64 bit, Anti-Virus, Adobe Reader and suitable for SCADA	1.00	Each	80,000.00	80,000.00	NDSR 6
30	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. Including excavation in hard rock with Pit Dimension: LxBXH = 1000mx1000mx3000m	2.00	Set	15,004.00	30,008.00	DSR E&M 2025 5.6
31	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. Including excavation in hard rock with Pit Dimension: LxBXH = 1000mx1000mx3000m	11.00	Set	8,351.00	91,861.00	DSR E&M 2025 5.4
32	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	25.00	Mtr	2,245.00	56,125.00	DSR E&M 2025 5.20
33	Supply and erection of HDGI flat of size 50mm x 6mm including supply and fixing of required quantity of HDGI Nut bolts and washers for earthing of all equipment.	55.00	Mtr	592.36	32,579.80	GED Rate
34	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	200.00	Mtr	160.00	32,000.00	DSR E&M 2025 5.9
35	Supplying of 1.1 kV, XLPE or Heat resistant PVC insulated, PVC extruded Inner Sheath Armoured Aluminium conductor LT UG Cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness and resistivity as per IS-3975					
35.1	1 Core x 630 sq.mm	300.00	Mtr	1,630.00	489,000.00	NDSR 7
35.2	3.5 Core x 400 sqmm	60.00	Mtr	3,210.00	192,600.00	NDSR 8
35.3	3.5 Core x 185 sqmm	130.00	Mtr	1,626.00	211,380.00	NDSR 9
35.4	3.5 Core x 120 sqmm	30.00	Mtr	1,084.00	32,520.00	NDSR 10
35.5	4 Corex25 sqmm	20.00	Mtr	330.00	6,600.00	NDSR 11
36	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m,	55.13	Cum	1,589.00	87,601.57	DSR Civil 2023, 2.7.3

	as directed by Engineer-in-charge. i) Hard Rock (blasting prohibited)					
37	Filling available excavated earth (excluding rock in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50m and for all lift	55.13	Cum	217.00	11,963.21	DSR Civil 2023, 2.25
38	Excavation and re laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the trench etc as required, but excluding sand cushioning and protective covering					
38.1	Above 185 sq. mm and upto 400 sq. mm	100.00	Mtr	364.00	36,400.00	DSR E&M 2025 10.3.4
39	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.					
39.1	Upto 35 sq. mm	20.00	Mtr	36.00	720.00	DSR E&M 2025 10.6.1
39.2	Above 185 sq. mm and upto 400 sq. mm	30.00	Mtr	146.00	4,380.00	DSR E&M 2025 10.6.4
40	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.					
40.1	1C x 630 sq.mm	16.00	Each	2,591.00	41,456.00	NDSR 12
40.2	3½ X 400 sq. mm (82mm)	2.00	Each	1,713.00	3,426.00	DSR E&M 2025 11.1.31
40.3	3½ X185 sqmm (57mm)	1.00	Each	1,001.00	1,001.00	DSR E&M 2025 11.1.27
40.4	3½ X 120 sq. mm (45 mm)	2.00	Each	710.00	1,420.00	DSR E&M 2025-11.1.25
40.5	4 X 25 sq. mm (28mm)	2.00	Each	373.00	746.00	DSR E&M 2025-11.1.34
41	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.					
41.1	3.5 Core X 400 sq. mm	1.00	Each	8,541.00	8,541.00	DSR E&M 2025-11.4.28
41.2	3.5 Core x 185 sqmm	1.00	Each	4,886.00	4,886.00	DSR E&M 2025-11.4.24
42	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. in the existing trench, complete as required.					
42.1	200 mm dia (OD-200 mm & ID-175 mm nominal)	190.00	Mtr	580.00	110,200.00	DSR E&M 2025 15.15.5
42.2	120 mm dia (OD-120 mm & ID-103 mm nominal)	30.00	Mtr	264.00	7,920.00	DSR E&M 2025 15.15.3
43	Supplying and making LT cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	4.00	Nos	683.00	2,732.00	DSR E&M 2025 10.9
	Other Misc. Works					
44	Providing & Fixing of Class C rubber insulation mats 1.0 Mtr. Wide,3 mm thick to withstand 33 kV dielectric strength as per IS 5672:2006	3.00	RM	1,190.00	3,570.00	NDSR 13

45	Providing & Fixing of Class B rubber insulation mats 1.0 Mtr. Wide,2mm thick to withstand 1.1 kV dielectric strength as per IS 5672:2006	15.00	RM	600.00	9,000.00	NDSR 14
46	Providing First Aid kit with box as approved by St. John Ambulance Brigade/ Indian Red Cross conforming to IS 2217:1963	1.00	Each	500.00	500.00	NDSR 15
47	Supply & Fixing of safety instruction chart in word duly framed with 5mm thick glass as reqd (approx. front area 1.20 sqm)	1.00	Each	793.00	793.00	NDSR 16
48	Supply & Fixing of shock treatment chart duly mounted on a wooden frame with 5mm thick glass as reqd (approx. front area 1.20 sqm)	1.00	Each	2,000.00	2,000.00	NDSR 17
49	Supply & Fixing of ABC fire extinguishers portable type 6 Kg capacity fully charged, finished externally with red enamel paint and hanged on wall with brackets or floor stand support complete in all respects.	1.00	Each	2,078.00	2,078.00	NDSR 18
50	Supply & Fixing of 4.5 kg capacity CO2 type fire extinguisher consisting of welded M.S. cylindrical body, internal discharge tube, discharge nozzle, suspension bracket, conforming to IS 2878, fully charged, finished externally with red enamel paint and hanged on wall with brackets or floor stand support complete in all respects.	1.00	Each	5,540.00	5,540.00	NDSR 19
51	Supplying, metal spreading with surfacing course of 150mm thick composed of 40mm thick stone aggregate (single uniform size) on the switch yard area as directed by Engineer-in-Charge and complete in all respects	12.00	Cum	3,793.00	45,516.00	NDSR 20
52	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But withoutMCB/RCCB/Isolator)					
52.1	4 way (4 + 12), Double door	1.00	Each	4,377.00	4,377.00	DSR E&M 2025 2.4.1
53	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required					
53.1	Single pole MCB	8.00	Each	285.00	2,280.00	DSR (E&M) 2025, i-2.10.1
53.2	Double pole MCB	2.00	Each	696.00	1,392.00	DSR (E&M) 2025, i-2.10.3
54	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.	1.00	Each	1,115.00	1,115.00	DSR (E&M) 2025, i-2.13.3
55	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit, with modular switch, modular plate, suitable GI/PVC box and earthing the point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable etc. as required.					
55.1	Group A	4	Point	1189	4756	DSR (E&M) 2025, i-1.10.1
55.2	Group B	4	Point	1362	5448	DSR (E&M) 2025, i-1.10.2
55.3	Group C	8	Point	1704	13632	DSR (E&M) 2025, i-1.10.3

56	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.					
56.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	30.00	Meter	311.00	9,330.00	DSR E&M 2025 1.14.2
56.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	15.00	Meter	373.00	5,595.00	DSR E&M 2025 1.14.3
57	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required					
57.1	5/6 A switch	5.00	Each	121.00	605.00	DSR E&M 2025 1.24.1
57.2	15/16 A switch	5.00	Each	176.00	880.00	DSR E&M 2025 1.24.3
57.3	3 pin 5/6 A socket outlet	5.00	Each	136.00	680.00	DSR E&M 2025 1.24.4
57.4	6 pin 15/16 A socket outlet	5.00	Each	219.00	1,095.00	DSR E&M 2025 1.24.5
58	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	4.00	Each	402.00	1,608.00	DSR E&M 2025 1.25
59	Supplying and fixing following size/ modules,PVC box on surface etc. as required.					
59.1	4 Module	2.00	Each	90.00	180.00	NDSR 22
59.2	6 Module	2.00	Each	105.00	210.00	NDSR 23
60	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc.as required.					
60.1	4 Module	2.00	Each	182.00	364.00	DSR E&M 2025 1.28.3
60.2	6 Module	2.00	Each	207.00	414.00	DSR E&M 2025 1.28.4
61	Brush Less Direct Current (BLDC) Fan without Remote Supply, Installation, Testing and Commissioning of ceiling fan with Brush Less Direct Current (BLDC)Motor, class of insulation: B, 3 nos. metal(Aluminium alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value(CM/M/W) minimum as below, 350 RPM (tolerance asper IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 0C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC supply, Ceiling Fan compliant to IS 374:2019 fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required.	4.00	Each	2,695.00	10,780.00	DSR E&M 2025 9.2.3
62	Supply of Heavy Duty Exhaust Fan 380 mm (15), Single Phase, 4 Blade complete as required	8.00	Each	4,946.45	39,571.60	NDSR 24
63	Installation, Testing and Commissioning of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.					
63.1	Upto 450 mm sweep	8.00	Each	556.00	4,448.00	DSR E&M 2025 1.50.1

64	Extra for fixing the louvers/ shutters complete with frame for a exhaust fan of all sizes.	8.00	Each	260.00	2,080.00	DSR E&M 2025 1.51
65	Supplying, Installation, Testing & Commissioning of LED surface mounted Batten light of following body material and construction as per IS : 10322 with driver (Replaceable) as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -5 °C to 40 °C, internal surge protection of 2.5 KV with Short & Open circuit protection, THD < 10%, P.F.≥0.95, IP20, CRI >80, Flicker free, (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required. System lumen efficacy ≥105 <120 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C) Powder coated die cast /Extruded aluminium Body (Thickness > 1.20 mm) Capacity: 18-22 Watt	20.00	Nos	681.00	13,620.00	DSR E&M 2025 8.9.1
66	Supplying, installation, Testing & Commissioning of 50 W Street light LED fixture powder coated pressure die cast aluminium body with driver as per the requirement with Driver efficiency >85%, Input voltage: 140-270 Volt AC, frequency 50/60 hz, Operating temp range -5 0C to 50 0C, internal surge protection of 5 KV L,N,E as per IEC 61000-4-5, as required. System lumen efficacy ≥105 <120 lm/Watt output as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C).	6.00	Nos	1,782.00	10,692.00	DSR E&M 2025 8.12.12
	Total SH: Electrical Work (incl GST)		**Rs.**		**1,69,10,362**	

Name of Work: "Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa" Sub Head : Civil Work						
S No	**Description of Item**	**Qty**	**Unit**	**Rate**	**Amount**	**Reference**
	Metering Cubicle Stand					
1	Providing MS angle Structural steel work with MS Angle of 75x75x6mm dimensions in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a primer coat of approved steel primer all complete for Feeder Pillar Panel Base angle with supports	200.81	Kg	117.35	23,565.05	DSR Civil 2023, i-10.1
	Transformer & RMU Foundation					
2	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. i) Hard Rock (blasting prohibited)	10.96	cum	1432.95	15,705.13	DSR Civil 2023, 2.7.3
3	Filling available excavated earth (excluding rock in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50m and for all lift	1.48	cum	196.00	290.08	DSR Civil 2023, 2.25
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : i) 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)	0.91	cum	7294.70	6,638.18	DSR Civil 2023, 4.1.5
5	Centering and shuttering including strutting ,propping etc and removal of formwork: Foundations, footings, bases for columns	16.71	sqm	392.15	6,552.83	DSR Civil 2023, 5.9.1
6	Providing and laying in position specific grade of reinforced cement concrete, excluding the cost of shuttering, finishing and reinforcement- All work upto plinth level: i) 1:1.5.3 (1 cement : 1.5 coarse sand (zone III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	2.25	cum	9045.75	20,352.94	DSR Civil 2023, 5.33.1
7	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. i) Thermo-Mechanically Treated bars of grade Fe-500D or more.	151.84	kgs	107.85	16,375.94	DSR Civil 2023, 5.22.6
8	Supplying and stacking at site: i) Moorum	1.48	cum	768.25	1,137.01	DSR Civil 2023, 16.3.10
	Chain link Fencing					
9	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	570.00	kgs	117.35	66,889.50	DSR Civil 2023, 10.1
10	Providing and fixing G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers as required complete as per the direction of Engineer-in-charge.ii) Made of G.I. wire of dia. 4 mm, PVC coated to achieve outer dia not less than 5 mm in required colour and shade	40.32	Sqm	1067.10	43,025.47	DSR Civil 2023, 16.70.2
11	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : i) Two or more coats on new work	34.52	Sqm	155.90	5,381.67	DSR Civil 2023, 13.61.1
	Civil Plinth Work for Prefabricated Room for Substation(10m x 10m) including Trench (15m x 1m x 1.5m)					
12	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including	35.415	cum	1432.95	50,747.92	DSR Civil 2023, 2.7.3

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil

	getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. i) Hard Rock (blasting prohibited)					
13	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : i) 1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)	10.36	cum	7294.70	75,573.09	DSR Civil 2023, 4.1.5
14	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : i) 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size)	1.79	cum	9045.75	16,191.89	DSR Civil 2023, 5.1.2
15	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. i) Thermo-Mechanically Treated bars of grade Fe-500D or more.	150	kgs	107.85	16,177.50	DSR Civil 2023, 5.22.6
16	Centering and shuttering including strutting, propping etc. and removal of form for : i) Foundations, footings, bases of columns, etc. for mass concrete	10.56	sqm	392.15	4,141.10	DSR Civil 2023, 5.9.1
17	12 mm cement plaster of mix : i) 1:4 (1 cement: 6 coarse sand)	55.00	sqm	357.35	19,654.25	DSR Civil 2023, 13.4.1
18	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete	256.50	Kgs	117.35	30,100.28	DSR Civil 2023, 10.1
19	Laterite Masonry in neatly dressed stones of as specified in cement mortar 1:5 (1 cement: coarse sand) in foundation and plinth.	17.67	cum	7929.00	140,105.43	NDSR
20	Supply and filling with moorum upto plinth not exceeding 20 cm in depth i.e., watering , ramming , consolidation & dressing each layer all complete for all lead & lift (compacted qty. shall be measured for payment.)	20.92	cum	1024.00	21,422.08	NDSR
	Total (Schedule Items)				4,18,500.00	
	Total (Schedule Items)after GST Factor 0.973				4,07,200.00	
	Adding Cost Index for Goa State (14%)				57,008.00	
	Total (Schedule Items) Inclusive of Cost Index				**4,64,208.00**	
	Total (Non-Schedule Items)				**1,61,528.00**	
	Sum Civil Work				**6,25,737.00**	**X**
21	Design, engineering, fabrication, supply, transportation, loading, unloading, erection, testing and commissioning of a factory-manufactured Prefabricated Substation Room of size 10 m × 10 m with clear internal height of 3.0 m above plinth level, complete in all respects. The work shall include a complete structural system comprising hot-rolled or tubular steel framework including columns, trusses, purlins, bracings, base plates and anchor bolt connections designed to withstand all applicable loads as per relevant Indian Standards. The enclosure shall consist of PUF insulated sandwich panel system for walls (minimum 50 mm thick) and roofing (minimum 30 mm thick) including all trims, flashings, ridge caps, end closures, sealants and necessary accessories to ensure a fully weatherproof and thermally insulated structure. The scope shall further include aluminium doors comprising one main equipment entry door suitable for movement of electrical equipment and one emergency/fire exit door, aluminium sliding windows of appropriate nos and ventilators complete with 4 mm glazing, locking arrangement and sealing works, roofing accessories such as ridge caps, flashings and end closures, PVC rainwater gutter system with brackets and fittings, and in-situ cement concrete flooring with smooth finish. All structural steel work shall be properly prepared and painted with one coat of primer and minimum two coats of synthetic	1	job	12,00,499.00	**12,00,499.00**	**Y**

	enamel paint. All fasteners, bolts, nuts, washers, screws, EPDM gaskets, rivets and sealants required for complete and proper installation shall be deemed included in the contractor's scope. The contractor shall be fully responsible for complete design validation, fabrication quality, transportation, safe erection, alignment, levelling, sealing and commissioning of the structure. The completed building shall be structurally stable, fully weatherproof, leak-proof, thermally insulated and ready for installation of electrical equipment. Any item not specifically mentioned but required for safe, complete and functional execution as per relevant standards shall be deemed included in the contractor's scope without any extra cost. The work shall be executed as per technical specification of NIT and CPWD General Specifications Civil Vol I & II.					
	Total Sub Head (Civil Work) incl GST				**18,26,236.00**	**X+Y**
	Say				**18,26,236.00**	

ABSTRACT

Total Sub Head (Electrical Work) incl GST	**Rs. 1,69,10,362/-**
Total Sub Head (Civil Work) incl GST	**Rs. 18,26,236/-**
Total Project Cost (Composite) incl GST	**Rs. 1,87,36,598/-**

BILL OF QUANTITIES/ PRICE BID

Validate Print Help

Percentage BoQ1

Tender Inviting Authority: Dean (Infrastructure & Support), IIT Goa

Name of Work :Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa-

Contract No: 0832-2490900

Name of the Bidder/ Bidding Firm /	

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	NUMBER	TEXT #	NUMBER	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Estimated Rate in Rs. Incl of Taxes	TOTAL AMOUNT in Rs. Incl of Taxes	TOTAL AMOUNT In Words
1	2	4	5	6	53	55
1	Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa					
1.1	SH: Electrical Work (as per the schedule of quantities)	1.000	Job	16910362.00	16910362.00	INR One Crore Sixty Nine Lakh Ten Thousand Three Hundred & Sixty Two Only
Total in Figures					16910362.00	INR One Crore Sixty Nine Lakh Ten Thousand Three Hundred & Sixty Two Only
Quoted Rate in Figures			Select		0.00	INR Zero Only
Quoted Rate in Words				INR Zero Only		

Validate Print Help

Percentage BoQ2

Tender Inviting Authority: Dean (Infra & Support)

Name of Work :Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa-

Contract No: 0832-2490900

Name of the Bidder/ Bidding Firm / Company :	

PRICE SCHEDULE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

NUMBER #	TEXT #	NUMBER	TEXT #	NUMBER	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Estimated Rate in Rs. Incl of Taxes	TOTAL AMOUNT in Rs. Incl of Taxes	TOTAL AMOUNT In Words
1	2	4	5	6	53	55
1	Establishment of 33/0.433 kV 1MVA dedicated Substation for IIT Goa					
1.2	SH: Civil Work (as per the schedule of quantities)	1.000	Job	1826236.00	1826236.00	INR Eighteen Lakh Twenty Six Thousand Two Hundred & Thirty Six Only
Total in Figures					1826236.00	INR Eighteen Lakh Twenty Six Thousand Two Hundred & Thirty Six Only
Quoted Rate in Figures			Select		0.00	INR Zero Only
Quoted Rate in Words				INR Zero Only		

Note: The work shall be awarded on overall L1 basis (i.e. BOQ1+BOQ2)

Correction: Nil, Deletion: Nil, Insertions: Nil, Overwriting: Nil