

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024



CHANAKYA NATIONAL LAW UNIVERSITY



REQUEST FOR PROPOSAL

September 2024

Name of Work: Augmentation of existing substation (SH: Replacement of HT Panel, ACB, pvdg new feeder pillar & LT cable) at Chanakya National Law University, Patna

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

CCONTENTS

SECTION	Description of Section	Page No
SECTION 1	Notice Inviting Quotation (NIT)	1 to 10
SECTION 2	Instructions to the Bidders (ITB)	13 to 17
SECTION 3	Clauses of the Contract	19 to 35
SECTION 4	Forms and Formats	37 to 42
SECTION 5	Scope of Work & Special Conditions of the Contract (SCC)	44 to 45
SECTION 6	Technical Specifications and List of Approved Makes	46 to 67

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION-1 NOTICE INVITING TENDER

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

Chanakya National Law University invited the quotations through an online E-tendering System from the reputed Indian quotationers for **Augmentation of existing substation (SH: Replacement of HT Panel, ACB, pvdg new feeder pillar & LT cable)**” inside CNLU campus.

SHORT TENDER NOTICE

Through e-procurement mode only https://eproc2.bihar.gov.in	
Chanakya National Law University invited the quotations through online E-tendering System from the reputed Indian quotationers for Augmentation of existing substation (SH: Replacement of HT Panel, ACB, pvdg new feeder pillar & LT cable) ” inside CNLU campus.	
Name of the Work	“Augmentation of existing substation (SH: Replacement of HT Panel, ACB, pvdg new feeder pillar & LT cable)”.
Estimated Cost	1,98,985,66/- (One Crore Ninety-Eight Lakhs Ninety-Eight Thousand Five- Hundred Sixty-Six)
Period of Completion	Six (06) Months
Schedule of rates applicable	DSR 2022, SOR 2023, Non SOR
Cost of Document (Non-Refundable)	Rs. 10,000/- (Rupees Ten Thousand Only)
Earnest Money Deposit	Rs. 4,00,000/- (Rupees Four Lakh Only)
E-Tender Processing Fee	As per Eproc2 website
Bid start Date	23.09.2024.
Pre-Bid Meeting	30.09.2024 (offline) at The Registrar Chamber, CNLU, Patna from at 02:00 pm to 3.00 pm
Last Date & Time for Uploading of Quotation	till 07.10.2024 up to 02.00 pm
Date & Time of Opening of Technical Quotation	07.10.2024 at 02.30 pm.
Date & Time of Opening of Financial Quotation	Will be intimated later
Place of Opening of Quotation	Registrar’s Chamber
Periods of Financial Quotation Validity	60 days
Officer inviting Quotation	The Registrar, CNLU, Patna.
For participation in E-tendering proc. The contractor shall have to get themselves registered to get User ID, Password & Digital Signature. This will enable accessing the website https://eproc2.bihar.gov.in & download / Participate in E-Tender.	
The tender document can be obtained through our website https://eproc2.bihar.gov.in and https://www.cnlu.ac.in	
<ol style="list-style-type: none">1. Bid Processing Fee to be paid through online mode i.e., Internet payment gateway (Credit/Debit Card), Net Banking, NEFT/ RTGS.2. Bids along with necessary online payments must be submitted through e-procurement portal https://eproc2.bihar.gov.in before the date & time specified in the NIQ.3. The department does not take any responsibility for the delay /Non availability of internet connection, Network Traffic / Holidays or any other reasons.”	
Bid Document cost should be paid as per https://eproc2.bihar.gov.in	
Earnest Money Deposit (EMD) shall have to be paid through e-payment.	

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

For support related to the e-tendering process, bidders may contact “e-procurement HELP DESK, Mjunction Services limited RJ Complex, 2nd Floor, Canara Bank Campus, Khajpura, Ashiana Road, P.S. –Shastri Nagar, Patna-800014, Bihar, Contact No. 18005726571.

Scope of work

The scope of work will be as per the work description mentioned in Appendix -I of this document.

Bidding documents

A) Bidder shall submit following scanned documents along with their offer:

- 1) Duly signed & stamped scan of document in which Name of the Firm, Address with contact number, FAX, E-mail of the Firm and Firm`s Bank Account Details with Bank Name & Address and IFSC / RTGS codes mentioned.
- 2) Scan of PAN card (in name of Proprietor in case of Proprietorship Firm) & GST certificate
- 3) Registered Partnership Deed in case of partnership firm or Memorandum of Article of association in case of Companies.
- 4) Scan of Affidavit as per Annexure-III
- 5) Scan of up-to-date Labour License
- 6) Scan of EPF Certificate
- 7) Scan of ESI Certificate
- 8) Scan of valid Character certificate issued for the purpose of contract work in favour of proprietor/ directors/ partners of bidding firm issued by the office of the Superintendent of Police.
- 9) Scan of list of Man power. Bidder must employ minimum 1 electrical engineer having valid degree in electrical engineering, one electrical supervisor and 2 electricians either having permit issued by govt of Bihar or having passed electrician examination from recognized ITI. Affidavit of employees towards employment with bidder must be submitted through Scan.
- 10) Scan of list of Tools & Plants duly certified by an electrical engineer not below the rank of Assistant Engineer. Adequacy of tools for such work will be an important criterion for technical qualification in the tender.
- 11) Scan of Electrical contractor license valid for 33 KV works issued by Govt of Bihar
- 12) Scan of Electrical supervisor license.
- 13) Scan of all documents mentioned in the technical BOQ such as OEM certificate, panel manufacturers certificate/ authorization etc. Bidder shall be bound to supply the products of the submitted brands unless exempted by CNLU due to closure of such firm.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

Eligibility Criteria

- 1) Contractor must be registered in Central/ State Govt works department/ Railways/MES/BSNL or other PSUs in appropriate category and should be valid till 31st December 2024. Scan of the same shall be uploaded.
- 2) Scan copy of work completion certificate issued by an Officer not below the rank of Executive Engineer of Electrical Division or equivalent of Central/ State works department/ Railways/MES/BSNL or other PSUs for work done in any Govt department or PSU either directly or through main contractor in any govt department, of following capacity, not more than 7 years old from the date of NIQ:
 - a) Similar Single work for not less than Rs. 1,50,00,000.00
Or
 - b) Similar Two works each for not less than Rs. 1,00,00,000.00 each
Or
 - c) Similar Three works each for not less than Rs. 80,00,000.00 each

Note: Similar work shall mean any work comprising of SITC of 33 KV HT Panel, 2500-amp LT Panel and LT Cable supplying and laying

- 3) Financial Capability: Scan of Audited balance sheet of the last 5 Financial years including FY 2023-24. Minimum Average Annual Turnover must not be less than Rs.1,00,000,00.00
- **Availability of Tender**

Tender documents can be available for download in the tender section at front page of CNLU website i.e., <https://cnlu.ac.in> and in the CNLU's e-Tender portal i.e., <https://eproc2.bihar.gov.in>
 - **Terms & Conditions**
 - I. Tender documents shall not be acceptable through post, courier or any offline mode. Interested bidders are advised to submit the bid only through our e-Tendering portal.
 - II. Scanned documents as mentioned in Eligibility criteria is mandatory. Bidder should upload all the scan of Genuine documents otherwise their technical bid shall be declared non responsive.
 - IV. Bidder or their authorized representative shall remain present during the Pre-Bid meeting and at the time of opening of Technical Bid and bidders whose technical quotation is declared responsive shall remain present at the time of opening of Financial Bid.
 - V. The price will be remain firm and fixed during the pendency of contract. It will not vary on any account including revision of taxes, imposition of new tax or any contingency whatsoever.
 - VI. EMD Cost: ₹4,00,000/- (Rupees Four Lakhs Only) should be submitted through **shall have to be paid through e-payment** while submitting the bid.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

VII. Cost of tender fee: ₹10,000.00 (Rupees Ten Thousand Only) and should be submitted through **shall have to be paid through e-payment** while submitting the bid.

IX. Incomplete bid and bid without genuine documents are liable for rejection. No responsibility will be taken for any type of technical glitch while online submission of bid

X. Notwithstanding anything to the contrary in this document, Chanakya National Law University is not bound to accept the lowest bid and reserves the right to accept or reject any bid, to reject bids for some or all items and to cancel the bidding process at any time prior to the award of contract, without assigning any reason whatsoever.

XI. University will not provide any residential facility to workers / authorities of successful bidder inside campus during work. Water and electrical facility for such shade will be chargeable.

XII. The work is required to be completed within the period mentioned against the works i.e. **within six months**. It will be reckoned from the date of the issue of work order after agreement. If the work is not completed within the stipulated completion period liquidated damages @0.5% of agreement value per day of delay will be levied (subject to maximum of 10%). CNLU reserves the right to rescind the agreement in case of inordinate and intentional delay in work.

XIII. Work shall be done strictly as per specification and direction of competent authority of CNLU, Patna.

XIV. Any Suggestions/Clarifications may be put forth in the pre bid meeting or through written letter / e- mail to registrar@cnlu.ac.in up to 01/10/2024 till 02:00 pm.

XV. Dispute, if any, will subject to Patna Jurisdiction only. The decision of Vice-Chancellor, CNLU will be final and binding with both the parties viz: bidder and the University

XVI. Price should be quoted in Indian Rupees only. The price will remain firm and fixed during the pendency of Contract and will Not be changed for any reason (including revision of taxes & levies whatsoever)

XVII. All labour laws & regulations are to be followed by the bidder.

XVIII. The bidder shall be bound to follow the restriction on the movement of labour, materials imposed by any other authority connected with the site due to security or any other reasons connected with the event. No claim shall be entertained on this account.

XIX. The bidder shall take all precautions to avoid accidents by exhibiting necessary cautions boards, lights, flags etc. and ensure that no hindrance is caused to the traffic. Bidder shall be responsible for all damages, accidents, caused due to negligence.

XX. The contractor shall arrange all tools and plants necessary for the execution of the work at his own cost. Any loss or damage in this case will be to his account.

XXI. Lowest responsive bidder will be considered on the total amount of bids of the respective work.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

XXII. The contractor under these contracts commits himself to use first class material and assumes full responsibility for the quality of all materials incorporated or brought for incorporation in the work. The work shall be executed in accordance with best engineering practice and as per direction of competent authority of CNLU.

XXIII. All the excavated materials including debris, loose earth etc., shall be carted away and disposed of as directed by the competent authority of CNLU.

XXIV. Technical officers/Staff deployed by the Contractor / Firm at any construction site will also be responsible for inferior quality/Poor performance of any work and their names will be circulated to all works departments to debar them from any other site.

XXV. All the risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract other than the expected risks will be the responsibility of the contractor/ firm.

XXVI. Any deviation in the material and the specifications from the accepted terms may liable to be rejected. The bidders need to supply all the goods in the specified form to the satisfaction / specifications specified in the order / contract and demonstrate at their own cost.

XXVII. Chanakya National Law University reserves the right to withdraw / cancel / amend the quotation at any stage without assigning any reason whatsoever.

XXIX. Bidders should quote up to 15% maximum below of estimated cost (e.g. If the estimated cost is 100 lakhs the minimum amount which can be quoted without rate analysis will be 85 lakhs), if bidders are quoting more than 15% maximum below the estimated cost they are required to submit the justification along with rate analysis for the tendered rate enclosing the supporting documents related to the rates of inputs to establish the basis of such analysis. Offer shall be summarily rejected if proper justification not enclosed.

XXX. Amendment of Bid Document:

a) At any time prior to the last three days for receipt of bids, the Chanakya National Law University, Patna may for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bid Document by an amendment.

b) The amendment will be notified through official website of Chanakya National Law University for all the prospective Bidders.

c) In order to afford prospective bidder reasonable time in which to take the amendment into account in preparing and submitting their bids online, the University may, at its discretion, extend the last date for the receipt of the bid.

XXXI. Payment Terms

Payment will be released after the satisfactory report of competent authority / authorities for successful completion of work after necessary deduction as mentioned hereunder:

i. **Applicable TDS** will be deducted from the bill of total amount without tax as per the provision of Government of India and certificate for the same will be issue,

ii. **Applicable amount** will be deducted from total GST

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

XXXII. Agreement & Performance Security

a) Successful bidder will be issued a letter of acceptance. After receipt successful bidder shall enter into the agreement on PWD Form F2 failing which on **₹1,000.00 (Rupees One Thousand) non judicial stamp paper** within **(10) ten working days** from the **date of issue of work order**.

b) EMD shall be adjusted in amount of performance security. Successful bidder will deposit amount of performance security @ 3% of agreement value, after deducting amount of EMD, in form of **NEFT / RTGS** at the time of agreement. Thus, initial Performance security will be @ **5% (Five Percent)** of the agreement value along with additional performance as applicable. Balance 5% of performance security will be deducted from on account running bills. Performance Security will be refundable after **60 days of successful completion of defect liability period i.e., One Year**. No interest will be payable on the earnest money as well as Performance Securities.

c) **Additional performance Guarantee: In case of tender being awarded below 15% of estimated cost, equaling the amount below the threshold of 15%. For example, if a tender at estimated cost of Rs. 1,00,000,00.00 is awarded for Rs.75,00,000.00, difference between threshold amount Rs. 85,00,000.00 (i.e. 15% below estimated cost) and awarded amount, Rs.10,00,000.00 shall be deposited as mentioned. The same shall be refunded after completion of work and shall be valid for the time allowed + 6 months.**

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

TECHNICAL BID

[PRE-QUALIFICATION CRITERIA FOR BIDDERS]

1. Proof of EMD and Tender Fee submission in the form of scanned copy of depository slip of NEFT/RTGS Transaction of required amount as mentioned above.
2. **The scanned copy of above all documents as mentioned earlier shall be uploaded on the portal.**

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

FINANCIAL PROPOSAL

1. Bidders who will be found Eligible in **Technical Proposals**, only those Bidder's financial proposals will be opened.
2. The tender will be awarded to the Bidder with the lowest quoted rate (L1) against the Probable Amount of Contract (PAC).
3. Bidders who are not found eligible in **Technical Proposals** will be rejected, and their Financial Proposals will not be opened.
4. The rates may be quoted in percentage above /below estimated rates or on estimated rates. The rates may be quoted up to two decimal points. The rates are to be quoted both in words and figures. In case of difference between the rates stated in words and figures rates quoted in the words will only be considered

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION-2

INSTRUCTIONS TO BIDDER

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

INSTRUCTION TO BIDDER

A. GENERAL INSTRUCTIONS:

1 General terms of Bidding-

- 1.1 No Bidder shall submit more than one BID for the Project.
- 1.2 The contractor is responsible for Supply, Installation, Testing and Commissioning of all electrical work.
- 1.3 The contractor is to give the guarantee for one year against all installation and equipment defects.
- 1.4 The Rate should be quoted including All taxes and Charges & Nothing will be paid extra except Quoted rates. (If any rise in tax or if new tax is imposed by central or State Govt, or any Govt authority after Tender the contractor is to bear the same).
- 1.5 All the Civil work Should be repaired with original material including coloring if any breakage or dismantling work is done during installation of the system, including cleaning of the site, for which no extra payment shall be made to the contractor.
- 1.6 The rates to be given for furnished complete work, all material, labor wastage, royalties, taxes, lease rent, scaffolding, transportation charges, breakage, making good any damage to wall, ceiling, fitting etc., to make the original finish including painting, transportation, replacement, of any defective material, theft, insurance, variation in market rates, removal of rubbish dismantled material, cleaning of site be included in the quoted rates.
- 1.7 The contractor is to arrange for storage of material & its Security arrangement during the installation & commissioning of work.
- 1.8 The contractor will be fully responsible for any accident, damages, losses, that occurs during the installation & commissioning of work. No compensation will be made by the CNLU.
- 1.9 The contractor is to take all measures for safety and security for man & material and to follow all labor laws.
- 1.10 The Rates should be quoted FOR at site PATNA.
- 1.11 The contractor should be registered in EPF & ESIC & necessary certificate of registration shall be submitted during tendering.
- 1.12 The Feasibility Report/Preliminary Project Report of the Project has been assessed however the Bidders are expected to carry out their own surveys, investigations and other Preliminary examination of the Project before submitting their Bids. Nothing contained in the attached drawings/BOQ shall be binding on the CNLU nor confer any right to the Bidders, and the CNLU shall have no liability whatsoever in relation to or arising out of any or all contents of TENDER.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

- 1.13 Notwithstanding anything to the contrary contained in this RFP, the Preliminary terms specified in the draft Agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Agreement.
- 1.14 The Bidder shall deposit non-refundable Tender Fee of ₹10,000/- (Rupees Ten Thousand only) and refundable BID Security (EMD) ₹ 4,00,000/- (Rupees Four Lakhs Only) in accordance with the provisions of this RFP.
- 1.15 The validity period of the Bank Guarantee/EMD, shall not be less than 180 (one hundred eighty) days from the BID Due Date, inclusive of a claim period of 60 (Sixty) days, and may be extended as may be mutually agreed between the CNLU and the Bidder.
- 1.16 The BID shall be rejected if it is not accompanied by the Tender Fee and EMD/BID Security. The EMD/BID Security shall be refundable no later than 150 (one hundred and fifty) days from the BID Due Date except in the case of the Selected Bidder whose BID Security/EMD shall be retained till it has provided a Performance Security under the Agreement
- 1.17 Any condition or qualification or any other stipulation contained in the BID shall render the BID liable to rejection as a non-responsive BID.
- 1.18 The documents including this RFP and all attached documents, provided by the CNLU are and shall remain or become the property of the CNLU and are Transmitted to the Bidders solely for the purpose of preparation and the submission of a BID in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their BID. The provisions of this Clause shall also apply mutatis mutandis to BIDs and all other documents submitted by the Bidders, and the CNLU will not return to the Bidders any BID, document or any information provided along therewith.
- 1.19 This RFP is not transferable.
- 1.20 Any entity which has been barred by GOI or Govt of Bihar, BIHAR DISCOM for similar works, and the bar subsists as on the Bid Due Date, would not be eligible to submit the BID.
- 1.21 The CNLU reserves the right to reject an otherwise eligible bidder based on the information given in this tender document. The decision of the CNLU in this case shall be final.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

2. **TENDER FEE AND EARNEST MONEY DEPOSIT:**

Interested contractor who wish to participate in the tender has also to make following payments through NEFT/RTGS.

Cost of Tender Document– ₹10,000/- should be submitted through Scan of the receipt of depository should be uploaded on our e-tendering portal while submitting the bid. Tender Fee is non-refundable.

EMD of ₹ 4,00,000/- (Rupees Four Lakhs Only) should be submitted through Scan of the receipt of depository should be uploaded on our e-tendering portal while submitting the bid. The EMD of all unsuccessful Bidders will be returned within thirty (30) days of the Award of the contract to successful Bidder. No interest will be payable by the CNLU on the said amount covered under EMD/Any other Security Deposit.

The Price tender of those Bidders whose technical documents found to be in order shall be opened. The date of opening of price tender shall be informed to the Bidder.

The tender submitted shall become invalid if:

- The Bidder is found ineligible/if any document is found fake.
- The Bidder does not submit all the documents (including GST registration) as stipulated in the tender document.

If any discrepancy is noticed in the documents submitted in the office of tender opening authority.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

3. VALIDITY OF TENDER:

The tender for the works shall remain open for acceptance for a period of One Hundred Eighty (180) days from the date of opening of financial tender. If any Bidder withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the CNLU, then the CNLU shall, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money as aforesaid. Further the Bidders shall not be allowed to participate in the retendering process of work.

4. ACCEPTANCE OF TENDER:

CNLU reserves the right to reject any or all the tenders in part or full without assigning any reason whatsoever. The CNLU reserves the right to award the work to a single party or split the work amongst two or more parties as deemed necessary without assigning any reason thereof. The Contractor is bound to accept the part work as offered by CNLU after splitting.

The tenders shall be strictly as per the conditions of contract. Tenders with any additional condition(s)/modifications shall be rejected.

The witnesses to the Tender/Contract Agreement shall be other than the Bidder/Bidders competing for this work and must indicate full name, address, and status/occupation with dated signatures.

The acceptance of tender will rest with the CNLU who does not bind itself to accept the lowest tender and reserves to itself the right to reject any or all the tenders received without assigning any reason thereof. Tenders in which, any of the prescribed conditions are not fulfilled or found incomplete in any respect are liable to be rejected.

On acceptance of tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from Engineer-in-Charge or its authorized representative shall be intimated by the contractor within 07 days of issue date of letter of Awards by CNLU.

The time of completion of the entire work, as contained in contract shall be as mentioned in "Memorandum - Annexure-I", which shall be reckoned from the 10th day after issue of the letter of Award by the CNLU.

Canvassing whether directly or indirectly, in connection with Bidders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.

The tender award, execution and completion of work shall be governed by tender documents consisting of (but not limited to) Letter of Award/Letter of work order, Bill of Quantities, Special Conditions of Contract, General Conditions of Contract, Specifications, Drawings. The Bidders shall be deemed to have gone through the various conditions including sub-soil water conditions, topography of the land, drainage, and accessibility etc. or any other condition which in the opinion of contractor will affect his price/rates before quoting their rates. No claim whatsoever against the foregoing shall be entertained. The drawings with the tender documents are Tender Drawing and are indicative only.

5. ADDENDA/ CORRIGENDA:

Addenda/Corrigenda to the tender documents may be issued prior to the date of submission of the tender to clarify or effect modification in specification and/or contract terms included in various tender documents. The Bidder shall suitably take into consideration such Addenda/Corrigenda while submitting his tender. The Bidder shall return such Addenda/Corrigenda duly signed and stamped as confirmation of its receipt & acceptance and submit along with the tender document. All addenda/ Corrigenda shall

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

be signed and stamped on each page by the Bidder and shall become part of the tender and contract documents.

6. SITE VISIT AND COLLECTING LOCAL INFORMATION:

It will be imperative on each Bidder to fully inform himself of all local conditions and factors which may have any effect on the execution of the Contract covered under these documents and specifications. The Owner shall not entertain any request for clarifications from the Bidders, regarding such local conditions.

It must be understood and agreed that such factors have properly been investigated and considered while submitting the proposals. No claim for financial adjustment to the Contract awarded under these specifications and documents will be entertained by the Owner. Neither any change in the time schedule of the Contract nor any financial adjustments arising thereof shall be permitted by the Owner, which are based on the lack of such clear information or is effect on the cost of the Works to the Bidders.

7. ORDER OF PRECEDENCE OF DOCUMENTS:

In case of difference, contradiction, discrepancy, regarding conditions of contract, Specifications, Drawings, Bill of quantities etc. forming part of the contract, the following shall prevail in order of precedence.

Letter of Award, along with statement of agreed variations and its enclosures, if any description of Bill of Quantity/Schedule of Quantities. Special Condition of Contract. Technical specifications (General, Additional and Technical Specification) as given in Tender documents.

General Conditions of Contract. Drawings, CPWD/ CNLU specifications (as specified in Technical Specification of the Tender) update with correction slips issued up to last date of receipt of tenders. Relevant B.I.S. Codes.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION-3

CLAUSES OF CONTRACT

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

CLAUSES OF CONTRACT(CC)

1. DEFINITIONS

The Contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of CNLU and the contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings, and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.

Chanakya National Law University, hereinafter called 'CNLU' propose to get the works executed as mentioned in the Contract on behalf of Client as Implementing agency/Executing Agency.

In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them: -

APPROVAL means approved in writing including subsequent written confirmation of previous verbal approval.

BILL OF QUANTITIES or SCHEDULE OF QUANTITIES means the priced and completed Bill of Quantities or Schedule of Quantities forming part of the tender.

CONTRACTOR shall mean the individual, firm, LLP, or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or LLP or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.

CONTRACT VALUE means the sum for which the tender is accepted as per the letter of Award.

DRAWINGS mean the drawings referred to in the contract document including modifications if any and such other drawings as may from time to time be furnished and/ or approved by CNLU.

DATE OF COMMENCEMENT OF WORK: The date of start of contract shall be reckoned from 10 days after the date of issue of letter of Award.

ENGINEER-IN-CHARGE means the Engineer of CNLU who shall supervise and be in-charge of the work.

LETTER OF AWARD shall mean CNLU's letter or notification conveying its acceptance of the tender subject to such conditions as may have been stated therein.

MONTH means English Calendar month "Day" means a Calendar Day of 24 Hrs each.

CNLU shall mean Chanakya National Law University, a registered under the, with its office at Near Jakanpur Police Station, Nyaya Nagar, Mithapur, Patna 800 001, Bihar, India or its Administrative officers or its engineer or other employees authorized to deal with any matter with which these persons are concerned on its behalf.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SCHEDULE(s) referred to in these conditions shall mean the standard schedule of rates of the government mentioned in the Memorandum (Annexure-I) with the amendments thereto issued up to the date of receipt of the tender.

SITE means the lands and other places on, under, in or through Which the works are to be executed or carried out and any other lands or places provided by CNLU or used for the purpose of the contract.

TENDER means the Contractor's priced offer to CNLU for the execution and completion of the work and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Award or Award letter. The word TENDER is synonymous with Tender and the Word TENDER DOCUMENTS with "Tendering Documents" or "offer documents".

WRITING means any manuscript typed written or printed statement under or over signature and/or seal.

Works or Work shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional. The headings in the clauses/ conditions of tender documents are for convenience only and shall not be used for interpretation of the clause/ condition.

Words imparting the singular meaning only also include the plurals and vice versa where the context requires. Words importing persons or parties shall include firms and corporations and organizations having legal capacities.

Excepted Risk are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the CNLU or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to CNLU's faulty design of works.

Market Rate shall be the rate as decided by the Engineer-in-Charge based on the prevailing cost of materials and labour at the site where the work is to be executed plus the percentage mentioned elsewhere in the tender document to cover, all overheads and profits.

2. **PERFORMANCE SECURITY:**

EMD shall be adjusted in amount of performance security. "Within 30 (Thirty) days from the date of issue of letter of Award or within such extended time as may be granted by CNLU in writing, the contractor shall submit to CNLU amount of performance security @ 3% of agreement value, after deducting amount of EMD, in form of **NEFT / RTGS**. Balance 5% of performance security will be deducted from on account running bills. Performance Security will be refundable after **60 days of successful completion of defect liability period i.e., One Year**. No interest will be payable on the earnest money as well as Performance Securities.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

CNLU reserves the right of forfeiture of the performance guarantee in the event of the contractor's failure to fulfill any of the contractual obligations or in the event of termination of contract as per terms and conditions of contract.

In case the contractor fails to submit the performance guarantee of the requisite amount within the stipulated period or extended period, letter of Award automatically will stand withdrawn and EMD of the contractor shall be forfeited.

3. DEVIATIONS / VARIATIONS EXTENT AND PRICING:

The Engineer-in-Charge shall have power (i) to make any alterations in, omissions from, additions to or substitutions for, the original specifications, drawings, designs and instructions that may appear to him to be necessary during the progress of the work, (ii) to omit 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, additions or substituted works which the contractor may be directed to do in the manner specified above as part of the work, 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 hereunder provided:

The time for the completion of the work 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: in the proportion which the additional cost of the altered, additional, or substituted work bears to the original tendered value plus 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

If the extra items include any work for which no rate is specified in the contract, then such work shall be carried out at the rates entered in the schedule of rates for Works minus/plus the percentage quoted for scheduled items. The scheduled item means the items appearing in the Schedule of Rates (as mentioned in Memorandum (Annexure-I) Works) which shall be applicable in this clause.

However, In the case of extra item(s), (items that are completely new, and are in addition to the items contained in the contract, and not included in the schedule of rates, the contractor may within fifteen days of receipt of order or occurrence of the item(s) claim rates, supported by proper analysis, for the work and the engineer-in-charge shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates 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.

In the case of substituted items (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following para:

If the market rate for the substituted item so determined is more than the market rate of agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

If the market rate for the substituted item so determined is less than the market rate of the agreement (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

difference between the market rates of substituted item and the agreement item (to be substituted).

Market Rates to be determined as per clauses given in the tender document shall be based on **Prevailing rates of Material (unless mentioned otherwise), Relevant Labour authority rate for Labour, market rates of T&P etc. plus 15% towards Contractors' Profits and Overheads.**

The following factors may be considered in the justification of rates on which **Contractor's overhead & profit** shall not be applicable:

Buildings and Other Construction Worker Cess as applicable in the state of workplace, EPF (Employer Contribution) component, as per EPF act on the portion of labour's wages.

4. ESCALATION:

No claim on account of any escalation on whatsoever ground shall be entertained at any stage of works. All rates as per Bill of Quantities (BOQ) quoted by contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation shall be applicable on this contract.

5. COMPENSATION FOR DELAY:

It will be reckoned from the date of the issue of work order after agreement.

If the contractor fails to maintain the required progress to complete the work and clear the site on or before the completion schedule of contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the CNLU on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below.

This will also apply to items or group of items for which a separate period of completion has been specified.

Compensation for delay of work @0.5% of agreement value per day of delay will be levied (subject to maximum of 10%). If the liquidated damages reach the level of 10% the agreement value the contract is liable to be rescinded.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with CNLU.

6. CANCELLATION/DETERMINATION OF CONTRACT IN FULL OR PART:

Subject to other provisions contained in this clause the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and / or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workmanlike manner shall omit to comply with the requirement of such notice for a period of seven days thereafter: or

If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge: or

If the contractor fails to complete the work within the stipulated date and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

If the contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge: or

If the contractor shall offer or give or agree to give to any person in CNLU service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any action relation to the obtaining or execution of this or any other contract for CNLU; or

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge may without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to CNLU, by a notice in writing to cancel the contract as whole or only such items of work in default from the Contract, the Engineer-in-charge shall have powers:

Take possession of site and any materials, constructional plant, implements, stores, etc. thereon; and/ or Carry out the incomplete work by any means at the risk and cost of the contractor; and/ or The Engineer-in-charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work/part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by CNLU because of action under this clause shall not exceed 10% of the tendered value of the work.

7. TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR:

Without prejudice to any of the right or remedies under this contract if the contractor dies, the Engineer in-charge shall have the option of terminating the contract without compensation to the contractor.

8. TIME ESSENCE OF CONTRACT & EXTENSION FOR DELAY:

The entire works under reference is required to be completed within six (06) months from the date of issue of LOA. Time is the essence of Contract, and every effort shall be made to complete the work within stipulated period of six (06) months from the date of LOA.

If the work(s) be delayed by:

1. force-majeure or
2. Abnormally bad weather, or
3. Serious loss or damage by fire, or
4. Civil commotion, local commotion of workmen, strike, or lockout, affecting any or the trades employed on the work, or
5. Delay on the part of other contractors or tradesmen engaged by Engineer-in- Charge in executing work not forming part of the Contract, or
6. Non-availability of stores, which are responsibility of the CNLU or
7. Non-availability or break down of tools and plant to be supplied or supplied by CNLU
8. Any other cause which, in the absolute discretion of the CNLU, is beyond the Contractor's control.

Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired. In any such case CNLU may give a fair and reasonable extension of time for completion of work. Such extension shall be communicated

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

to the Contractor by the Engineer-in-Charge in writing within a reasonable time from the receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and the extension of time so given by the Engineer-in-Charge shall be binding on the contractor.

9. TAXES AND DUTIES:

Except as otherwise specifically provided in the contract, the contractor shall be liable and responsible for the payment, of all taxes, and GST or in the state concerned which may be specified by local/state/ central government from time to time on all material articles which may be used for this work. The rates quoted by him in the tender in bill of quantities shall be inclusive of all taxes and GST. In the event of nonpayment/default in payment of any of the above taxes, CNLU reserves the right to with-hold the dues/payments of contractor and make payment to local/state/Central Government authorities or to labourers as may be applicable. The rate quoted by the contractor shall be deemed to be inclusive of all taxes as given in tender document Tax deductions at source shall be made as per laws prevalent in the State as applicable for the work.

The stamp duty and registration charges, if any, on the contract agreement levied by the Government or any other statutory body, shall be paid by the contractor as applicable in the state of work.

The Bidder shall quote his rates inclusive of Goods and Service Tax (GST) in conjunction with other terms and conditions. In the event of decrease / relaxation and / or waiver of any of the existing / prevailing tax(es), duties, levies, cess by Central / state Govt. Or any other statutory body(ies), after the last stipulated date for the receipt of tender including extension (if any), and the contractor thereupon has been paid or has raised claims of such tax(es), duties, levies, cess; such sums shall be recovered / deducted (from claims raised but which has not been paid) effective from the date as reckoned in the relevant statutory order / law / ordinance etc. The contractor, shall, within a period of 30 days of any such waiver/relaxation/decrease in tax(es), duties, levies, cess, give a written notice thereof to Engineer-in-charge stating the statutory change with Documentary proof thereto. Provided always that Engineer-in-charge shall have full powers to effect recovery/deduction on account of any such statutory change even if contractor has not intimated in the event when any such statutory action comes to his notice.

10. INCOME TAX DEDUCTION (TDS):

Income tax deductions shall be made from all payments made to the contractor including advances against work done, as per the rules and regulations in force, in accordance with the Income Tax act prevailing from time to time.

11. ROYALTY ON MATERIALS:

The contractor shall deposit royalty and obtain necessary permit for supply of bajri, stone, kankar, sand and other materials etc. from the local authorities and quoted rates shall be inclusive of royalty.

The contractor shall be deemed to have inspected the site, its surrounding and acquainted itself with the nature of the ground, accessibility of the site and full extent and nature of all operations necessary for the full and proper execution of the contract, space for storage of materials, constructional plant, temporary works, restrictions on the plying of heavy vehicles in area, supply and use of labour materials, plant, equipment and laws, rules and regulations, if any, imposed by the local authorities.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

The rates and prices to be tendered in the bill of quantities are for completed and finished items of works and complete in all respects. It will be deemed to include all constructional plant, labour, supervision materials, transport, all temporary works, erection, maintenance, contractor's profit and establishment/overheads, together with preparation of designs & drawings pertaining to casting yard, shop drawing, fabrication drawing (if required), staging form work, stacking yard, etc. all general risk, all taxes, royalty, duties, cess, octroi and other levies, insurance liabilities and obligations set out or implied in the tender documents and contract.

If any temporary/ permanent structure is encountered or safety of such structure in the vicinity is endangered due to execution of the project, the contractor must protect the structures by any means as per direction of Engineer-in-Charge. If any damage is caused to any temporary or permanent structure(s) in the vicinity due to execution of the project, the contractor must make good the same by any means as per direction of Engineer-in-Charge. The contractor should inspect the site of work from this point of view. The cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the contractor shall not be entitled for any extra payment in this regard.

12. INSURANCE OF WORKS ETC:

Contractor is required to take contractor's all risk policy or erection all risk policy (as the case may be) from an approved insurance company in the joint name with CNLU and bear all costs towards the same for the full period of execution of works including the defect liability period for the full amount of contract against all loss of damage from whatever cause arising other than excepted risks for which he is responsible under the terms of the contract and in such manner that the CNLU and the contractor are covered during the period of construction of works and/or also covered during the period of defect liability for loss or damage. The work and the temporary works to the full value of such works. The materials, constructional plant, centering, shuttering and scaffolding materials and other things brought to the site for their full value. Whenever required by CNLU, the contractor shall produce the policy or the policies of insurance and the receipts for payment of the current premium.

13. INSURANCE UNDER WORKMEN COMPENSATION ACT:

Contractor is required to take insurance cover under the Workman Compensation Act, 1923 amended from time to time from an approved insurance company and pay premium charges thereof. Wherever required by CNLU the contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums.

In case of failure of the contractor to obtain contractors all risk policy, and insurance under workman compensation act as described above within one month from the date of commencement of work, running account payments of the contractor shall be withheld till such time the aforesaid insurance covers are obtained by the contractor.

If the Contractor could not effect a comprehensive insurance cover against risks which he may be required to effect under the terms of the contract, then he shall give his attention to get the best insurance cover available and even in case of effecting a wider insurance cover than the one which the subsidiary of the General Insurance Company could offer, such an insurance is ought to be done after the CNLU's approval, by or through the subsidiary of the General Insurance Company.

The contractor shall at all times indemnify CNLU against all claims, damages or compensation under the provision of Payment of wages act-1936, Minimum Wages Act-1948, Employer's liability Act-1938, the workmen's compensation Act-1947, Industrial Disputes Act-1947 and Maternity Benefit Act- 1961 or any modifications thereof or any other law in force or as consequence of any accident or injury to any workman or other persons in or about the works, whether in the employment of the contractor or not, against all costs, charges and expenses of any suit, action or proceedings arising out of such incident or injury and against all sum or sums which may with the consent of the contractor be paid to compromise or compound any such claim. Without limiting his obligations and liabilities

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

as above provided, the contractor shall insure against all claims, damages or compensation payable under the Workmen's Compensation Act 1923 or any modification thereof or any other law relating thereto.

14. PAYMENTS:

All running payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and/or accepted by CNLU and shall not preclude the recovery for bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the Contract, or any part thereof, in this respect, or the accruing of any claim, nor shall it conclude, determine or affect in any way the powers of the CNLU under these conditions or any of them as to the final settlement and adjustments of the accounts or otherwise, or in any other way vary/ affect the contract. The final bill shall be submitted by the contractor within three months of the completion of work, otherwise CNLU's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on contractor

IF THE ITEM IS SITC THEN THE BIDDER WILL GET THE PAYMENT AS FOLLOWS:

50% against supply, 30% against installation/testing and 20 % against commissioning.

All payments shall be released by way of e-transfer through RTGS/NEFT in India directly at their Bank account by CNLU.

15. MEASUREMENTS OF WORKS:

Engineer-in-charge shall, except as otherwise provided, ascertain, and determine by measurement, the value of work done in accordance with the contract. Except where any general or detailed description of the work expressly shows to the contrary, measurement shall be taken in accordance with the Procedure set forth in the CONCERNED STATE PWD/CPWD Specification. In the case of items which are not covered by specifications, mode of measurement as specified in the Technical Specifications of the contract and if for any item no such technical specification is available, then a relevant standard method of measurement issued by the Bureau of Indian Standard shall be followed.

16. WITHHOLDING AND LIEN IN RESPECT OF SUMS DUE FROM CONTRACTOR:

Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, CNLU shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, CNLU shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, CNLU shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract pending finalization of adjudication of any such claim.

17. WORK TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS, AND ORDERS ETC.:

All items of work in the bill of quantities/ schedule of quantities shall be carried out as per the concerned State Public Works Department/CPWD/ CNLU specifications, drawings, and instructions of the Engineer-in-Charge of CNLU and the rates shall include for supply of required materials including proper storage, consumables, skilled & unskilled labour,

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

supervision and tools, tackles, plant & machinery complete as called for in the detailed specifications and conditions of the contract. Latest updated concerned State Public Works Department/CPWD/ CNLU specification shall be followed for execution of work. The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications.

The contractor shall also conform exactly, fully, and faithfully to the design, drawings, and instructions in writing in respect of the work assigned by the Engineer-in- Charge.

The contractor shall comply with the provisions of the contract and execute the works with care and diligence and maintain the works and provide all labour and materials, tools and plants including for measurements and supervision of all works, structural plans, and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified, or is reasonably inferred from the contract. The contractor shall take full responsibility for adequacy, suitability, and safety of all the works and methods of construction.

18. MATERIALS TO BE PROVIDED BY THE CONTRACTOR

The contractor shall, at his own expense, provide all materials, required for the works. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract.

The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply.

The contractor shall at his risk and cost, submit the samples of material to be tested or analyzed and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. The Engineer - in- Charge or his authorized representative shall always have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance and cost in obtaining the right and visit to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full power to require other proper materials to be substituted thereof and in case of default, the Engineer-in- Charge may cause the same to the supplies and all costs which may require such removal and substitution shall be borne by the contractor.

19. MATERIALS:

The materials/products used on the works shall be one of the approved make/brands out of list of manufacturers/brands/makes given in the tender documents. In exceptional circumstances Engineer-in-Charge may allow alternate equivalent makes/brands of products/materials at his sole discretion. The final choice of brand / make shall remain with the Engineer- in-Charge, whose decision in this matter shall be final and binding and nothing extra on this account shall be payable to the Contractor. In case single brand/ make are mentioned, other equivalent makes/ brands may be considered by the Engineer -in-Charge. In case of variance in concerned State Public Works Department/CPWD/CNLU/IS/BIS Specifications from approved products/makes specification, the specification of approved product/make shall prevail for which nothing shall be paid extra to the Contractor. In case no make or brand of any materials, articles, fittings, and accessories etc. is specified, the same shall comply with the relevant Indian Standard Specifications and shall bear the ISI/BIS mark. The Engineer of CNLU shall have the discretion to check quality of materials and equipments to be incorporated in the work, at source of supply or site of work and even after incorporation in the work. They shall also have the discretion to check the workmanship of

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

various items of work to be executed in this work. The contractor shall provide the necessary facilities and assistance for this purpose.

The Contractor shall re-calibrate all measuring devices whenever so required by the Engineer-in-charge and shall submit the results of such calibration without delay. All field tests shall be carried out in the presence of CNLU's representative. All costs towards samples, materials, collection, transport, manpower, testing etc. shall be borne by the Contractor and are deemed to be included in the rates quoted by him in the bill of quantities.

The contractor(s) shall display the calibration certificate of each equipment at the location of equipment & shall get recalibrated at least one week before its expiry date.

20. MOBILIZATION OF MEN, MATERIALS AND MACHINERY:

All expenses towards mobilization at site and de-mobilization including bringing in equipment, work force, materials, dismantling the equipment's, clearing the site etc. shall be deemed to be included in prices quoted and no separate payment on account of such expenses shall be entertained.

It shall be entirely the Contractors responsibility to provide, operate and maintain all necessary construction equipment's, scaffoldings and safety, gadget, lifting tackles, tools, and appliances to perform the work in a workman like and efficient manner and complete all jobs as per the specifications and within the schedule time of completion of work.

It shall be the responsibility of the contractor to obtain the approval for any revision and/or modification desired by him from CNLU before implementation.

The procurement and supply in sequence and at the appropriate time of all materials and consumable shall be entirely the contractor's responsibilities and his rates for execution of work shall be inclusive of supply of all these items.

It is mandatory for the contractor to provide safety equipment's and gadgets to his all workers, supervisory and Technical staff engaged in the execution of the work while working. The minimum requirement (but not limited to) shall be gum boots, safety helmets, Rubber hand gloves, face masks, safety nets, safety belts, goggles etc. as per work requirements. Sufficient nos. of these equipment's and gadgets shall also be provided to CNLU by the contractor at his own cost for use of CNLU Officials and/ or workforce while working/supervision of work at site. No staff/ worker shall be allowed to enter the site without these equipment's/ gadgets.

The cost of the above equipment's/ gadgets is deemed to be included in the rates quoted by the contractor for the items & works as per Bill of Quantities and contractor shall not be entitled for any extra payment in these regards. The above norm is to be strictly complied with at site. In case the contractor is found to be deficient in providing Safety Equipment's/ Gadgets in the opinion of Engineer-in-charge, the Engineer-in-charge at his option can procure the same at the risk & cost of contractor and provide the same for the use of worksite and shall make the recoveries from the bills of the contractor for the same. The contractor shall abide by all rules & regulations pertaining to Health, Safety and Environment.

One copy of contract documents including drawings furnished to the contractor shall be kept at the site and the same shall at all reasonable times be available for inspection.

All materials, construction plants and equipments etc. once brought by the contractor within the project area, will not be allowed to be removed from the premises without the written permission of the Engineer-in-charge. Similarly, all enabling works built by the contractor for the main construction undertaken by him, shall not be dismantled, and removed without the written authority of the CNLU.

21. COMPLETION CERTIFICATE AND COMPLETION PLANS:

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

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.

22. FORECLOSURE OF CONTRACT BY CNLU:

If at any time after the commencement of the work the CNLU shall for any reason whatsoever is required to abandon the work or is not require the whole work thereof as specified in the tender to be carried out, the Engineer-in-Charge shall give notice in writing of the fact to the contractor, who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the foreclosure of the whole or part of the works.

23. DEFECTS LIABILITY PERIOD:

The contractor shall be responsible for the rectification of defects in the works for a period of twelve months from the date of taking over of the works by the CNLU or clients whichever is later. Any defects discovered and brought to the notice of the contractor forthwith shall be attended to and rectified by him at his own cost and expense. In case the contractor fails to carry out these rectifications, the same may without prejudice to any other right or remedy available, be got rectified by CNLU at the cost and expense of the contractor.

24. RESTRICTION ON SUBLETTING:

The contractor shall not sublet or assign the whole or part of the works except where otherwise provided, by the contract. The provision of labour on piece work basis shall not be deemed to be a subletting under this clause.

25. FORCE MAJEURE:

Any delay in or failure to perform of either party, shall not constitute default to give rise to any claim for damages, to the extent such delay or failure to perform is caused by an act of God, or by fire, explosion, flood or other natural catastrophe, governmental legislation, orders, or regulation etc. The time for performance of the obligation by the parties shall be deemed to be extended for a period equal to the duration of the force majeure event. Both parties shall make their best efforts to minimize the delay caused by the force majeure event.

26. DIRECTION FOR WORKS:

All works under the contract shall be executed under the direction and subject to approval in all respect of the Engineer-in-Charge of CNLU who shall be entitled to direct at whatever point or points and in whatever manner works are to be commenced and executed.

The Engineer-in-Charge and his representative shall communicate or confirm their instructions to the contractor in respect of the execution of work during their site inspection in a "Works Site Order Book" maintained at the site office of Engineer-in-Charge. The contractor or his authorized representative shall confirm receipt of such instructions by signing against the relevant orders in the book.

27. SCHEDULE OF QUANTITIES / BILL OF QUANTITIES:

The quantities shown against the various items of work are only approximate quantities which may vary as per the actual requirement at site. No item which is not covered in the bill

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

of quantities shall be executed by the Contractor without the approval of the CNLU. In case any Extra/Substituted item is carried out without specific approval, the same will not be paid.

28. INDIAN STANDARDS:

Wherever any reference is made to any IS in any specifications, drawings, or bill of quantities, it means the Indian Standards editions with up-to-date amendments issued till last date of receipt of tender documents.

29. TESTS AND INSPECTION:

The contractor shall carry out the various mandatory tests as per specifications and the technical documents that will be furnished to him during the performance of the work. All the tests on materials, as recommended by CONCERNED STATE PWD/CPWD, CNLU and relevant Indian Standard Codes or other standard specifications (including all amendments current at the last date of submission of tender documents) shall be got carried out by the contractor at the field-testing laboratory or any other recognized institution/ laboratory, at the direction of the CNLU. All testing charges, expenses etc. shall be borne by the contractor.

30. WORKS TO BE OPEN TO INSPECTION:

All works executed or under the course of execution in pursuance of this contract shall always be open to inspection and supervision of the CNLU. The work during its progress or after its completion may also be inspected, by Chief Technical Examiner of Government of India (CTE) and/or an inspecting authority of State Government of State in which work is executed. The compliance of observations/improvements as suggested by the inspecting officers of CNLU/CTE/ State authorities shall be obligatory on the part of the Contractor at the cost of contractor.

31. CARE OF WORKS:

From the commencement to the completion of works and handing over, the contractor shall take full responsibility for care thereof all the works and in case of any damage/loss to the works or to any part thereof or to any temporary works due to lack of precautions or due to negligence on part of Contractor, the same shall be made good by the Contractor.

32. NOTICE BEFORE COVERING UP THE WORK:

The contractor shall give not less than seven days' notice before covering up or otherwise placing beyond the reach of measurement any work, to the Engineer-in-charge in order that the same may be inspected and measured. If any work is covered up or placed beyond the reach of inspection/measurement without such notice or his consent being obtained the same shall be uncovered at the contractor expenses and he shall have to make it good at his own expenses.

33. SITE CLEARANCE:

The contractor shall ensure that the working site is kept clean and free of obstructions for easy access to job site and from safety point of view. Before handing over the work to the CNLU the contractor shall remove all temporary structures like the site offices, cement go-down, stores, labour hutments etc., scaffolding rubbish, debris etc. left-over materials tools and plants, equipments etc., clean the site to the entire satisfaction of the Engineer-in-charge. If this is not done the same will be got done by CNLU at his risk and cost.

The contractor shall clean all floors, remove cement/ lime/ paint drops and deposits, clean joinery, glass panes etc., touching all painter's works and carry out all other necessary items of works to make the premises clean and tidy before handing over the building, and the rates quoted by the contractor shall be deemed to have included the same.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

34. SET-OFF OF CONTRACTOR'S LIABILITIES:

CNLU shall have the right to deduct or set off the expenses incurred or likely to be incurred by it in rectifying the defects and/or any claim under this agreement against the Contractor from any or against any amount payable to the contractor under this agreement including security deposit and proceeds of performance guarantee.

35. POSSESSION PRIOR TO COMPLETION:

CNLU shall have the right to take possession of or use any completed or partially completed work or part of the work. Such possession or use shall not be deemed to be any acceptance of any work not completed in accordance with the contract agreement. If such prior possession or use by CNLU delays the progress of work an equitable adjustment in the time of completion will be made and the contract agreement shall be deemed to be modified accordingly. The decision of CNLU in such case shall be final binding and conclusive.

When the whole of the works or the items or the groups of items of work have been completed the contractor will give a notice to that effect to the Engineer in writing. The Engineer shall within 7 days of the date of receipt of such notice inspect the works and give instructions in writing to the contractor specifying the balance items of work which are required to be done by the contractor and shall also notify the contractor of any defect in the works affecting completion.

The contractor shall during execution prepare and keep updated a complete set of "as built" drawings to show each change from the contract drawings, changes recorded shall be countersigned by the Engineer- in- Charge and the contractor. Four copies of "as built" drawings shall be supplied to CNLU by the contractor within 30 days of the completion. All costs incurred in this respect shall be borne by the contractor.

36. EMPLOYMENT OF PERSONNEL:

The contractor shall employ only Indian Nationals as his representatives, servants, and workmen after verifying their antecedents and loyalty. He shall ensure that no personnel of doubtful antecedents and any other nationality in any way is associated with the works.

In case CNLU observed misconduct negligence or incompetence etc. on the part of any representative, agent, servant and workmen or employees etc. of the contractor, the CNLU shall have full power and without giving any reason to the contractor, instruct the contractor to remove such engineer / staff / worker from site and provide suitable replacements. The decision of the Engineer-in-charge shall be final and binding on the contractor. The contractor shall not be allowed any compensation on this account.

37. TECHNICAL STAFF FOR WORK:

The contractor shall employ at his cost the adequate number of technical staff during the execution of this work depending upon the requirement of work. For this purpose, the numbers to be deployed, their qualification, experience as decided by CNLU shall be final and binding on contractor. The contractor shall not be entitled for any extra payment in this regard. The technical staff should be available at site, whenever required by CNLU to take instructions.

38. VALUABLE ARTICLES FOUND AT SITE:

All gold, silver and other minerals of any description and all precious stones, coins, treasure, relics, antiques, and all other similar things which shall be found in, under or upon the site, shall be the property of the CNLU.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

39. MATERIALS OBTAINED FROM DISMANTLEMENT TO BE CNLU'S PROPERTY:

All materials like stone, boulders and other materials obtained during the work of dismantling, excavation etc. will be considered CNLU property and such materials shall be disposed of to the best advantage of CNLU according to the instructions in writing issued by the Engineer-in-charge.

40. LABOUR LAWS – LABOUR LAWS TO BE COMPLIED BY THE CONTRACTOR

The contractor shall obtain a valid license under the contract labour (Regulation & Abolition) Act 1970 and the contract labour Act (Regulation & Abolition) Central Rules 1971 and amended from time to time and continue to have a valid license until the completion of the work including defect liability period. The contractor shall also adhere by the provision of the child labour (Prohibition and Regulation) Act. 1986 and as amended from time to time.

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 above requirement shall attract the penal provisions of this contract arising out the resultant for non-execution of the work before the commencement of work. No labour below the age of 18 years shall be employed on the work.

Payment of wages:

The contractor shall pay to labour employed by him either directly or through subcontractors, wages not less than fair wages as defined in the CNLU 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.

The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him

In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with the CNLU contractor's Labour Regulations in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature 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.

The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non- fulfilment of the conditions of the contract for the benefit of the workers, non- payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

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.

The contractor shall indemnify and keep indemnified CNLU against payments to be made under and for the observance of the laws aforesaid and the CNLU Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.

The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

41. LAW COVERING THE CONTRACT:

This contract shall be governed by the Indian laws for the time being in force.

42. LAWS, BYE-LAWS RELATING TO THE WORK:

The contractor shall strictly adhere by the provisions, for the time being in force, of law relating to works or any regulations and bylaws made by any local authority or any water & lighting agencies or any undertakings within the limits of the jurisdiction of which the work is proposed to be executed. The contractor shall be bound to give to the authorities concerned such notices and take all approvals as may be provided in the law, regulations, or bylaws as aforesaid, and to pay all fees and taxes payable to such authorities in respect thereof.

43. CONTRACT AGREEMENT:

The Contractor shall enter into a Contract Agreement with the CNLU within 10 (TEN) days from the date of Letter of Award or within such extended time, as may be granted by the CNLU failing which no payment shall be released to the contractor. The cost of stamp papers, stamp duty, registration, if applicable on the contract, shall be borne by the Contractor. In case, the contractor does not sign the agreement as above or start the work within 10 (Ten) days of the issue of letter of Award, his earnest money is liable to be forfeited and Letter of award consequently will stand withdrawn.

44. MANNER OF EXECUTION OF AGREEMENT:

The agreement as per prescribed Performa as enclosed shall be signed at the office of the CNLU within 10(TEN days) days from the date of issue of Letter of Award. The Contractor shall provide for signing of the Contract, appropriate Power of Attorney, and the requisite documents/ materials. Unless and until a formal contract is prepared and executed, the Letter of Award read in conjunction with the Tendering Documents will constitute a binding contract.

45. JURISDICTION:

The agreement shall be executed at PATNA on non-judicial stamp paper purchased in PATNA and the courts in PATNA alone will have jurisdiction to deal with matters arising there from, to the exclusion of all other courts.

46. ARBITRATION:

1. **Arbitration Procedure:** If the efforts, to resolve all or any of the disputes through conciliation fail, then such a dispute shall be referred within 30 days from conclusion of

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

conciliation process to a Sole Arbitrator who would be nominated by CLNU's Patna authorized representative. The arbitration and conciliation act 1996 as amended from time to time will be applicable. The venue of such arbitration shall be at PATNA. The award of the sole Arbitrator shall be binding on all parties. The cost of Arbitration shall be borne by the respective parties. There will be no objections if the sole arbitrator nominated or appointed is an employee of CNLU.

2. The place of arbitration shall be PATNA, BIHAR

3. **English Language:** The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders, and awards shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings. The award shall be made in writing.

4. **Enforcement of Award:** The Parties agree that the decision or award, which shall be a speaking order, resulting from arbitration shall be final and binding upon the Parties and shall be enforceable in accordance with the provision of the Arbitration and Conciliation Act 1996 subject to the rights of the aggrieved parties to secure relief from any higher forum.

5. **Performance during Arbitration:** The Arbitration Proceedings shall be governed by Indian Arbitration and Conciliation Act 1996, as amended from time to time including provisions in force at the time the reference is made. Pending the submission of and/or decision on a Dispute and until the arbitral award is published; the Parties shall continue to perform their respective obligations under this Agreement without prejudice to a final adjustment in accordance with such award. The courts at PATNA shall have the sole exclusive jurisdiction to try all the cases arising out of this agreement.

6. **Notices:** That any notice under the terms of this License shall be in writing by registered post or delivered personally and signed by the party or his/its duly authorized representative giving such notice. All activities including day to day management, billing, termination etc. will be carried out from the office of the CLNU, PATNA.

REGISTRAR

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION-4

FORMS AND FORMATS

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

Annexure- I

ACCEPTANCE OF TENDER CONDITIONS

From: (On the letter head of the company by the authorized officer having power of attorney)

CNLU,
.....

Sub: Name of the work & NIQ No.:

Sir,

This has reference to above referred tender. I/We are pleased to submit our tender for the above work and I/We hereby unconditionally accept the tender conditions and tender documents in its entirety for the above work.

I/we are eligible to submit the tender for the subject tender and I/We are in possession of all the documents required.

I/We have viewed and read the terms and conditions of this GCC/SCC carefully. I/We have downloaded the following documents forming part of the tender document:

- a. Notice Inviting Tender (pg to....pg-)
- b. Instructions to Bidder (ITB) & Clauses of Contract (pg.....to....pg-)
- c. Technical Specifications (pg.....to....pg-)
- d. Bill of Quantities (BOQ)- (pg.....to....pg-)
- e. Tender Drawings (pg.....to....pg-)
- f. Acceptance of Tender Conditions
- g. Corrigendum, if any (pg.....to....pg-)

Should this tender be accepted, I/We agree to abide by and fulfill all terms and conditions referred to above and as contained in tender documents elsewhere and in default thereof, to forfeit and pay CNLU, or its successors or its authorized nominees such sums of money as are stipulated in the notice inviting tenders and tender documents.

If I/we fail to commence the work within 10 days of the date of issue of Letter of Award and/or fail to sign the agreement as per Contract and/or fail to submit performance guarantee as per of Clauses of Contract, I/we agree that CNLU shall, without prejudice to any other right or remedy, be at liberty to cancel the Letter of Award and to forfeit the said earnest money as specified above.

Your faithfully,
(Signature of the Bidder with Rubber stamp)

Annexure- II

FORM XXV

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

DETAILS OF THE BALANCE WORK IN HAND AS ON _____

(UPTO THE PRECEDING MONTH OF SUBMISSION OF BID) WITH CNLU

(To be submitted in Envelop-1)

S. No	Name of the Firm	Contract Value	Date of start as per LOI/ Contract	Date of completion as per LOI / Contract	Work done up to the preceding month of submission of bid	Balance value of work

Note: The bidder shall also include the value of all such works which are awarded to bidder but not started up to the preceding month of submission of bid.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

Annexure- III

FORM XXVI AFFIDAVIT

(To be submitted by bidder on non-judicial stamp paper of Rs. 100/- (Rupees Hundred only) duly attached by Notary Public)

Affidavit of Mr.S/o.....R/o.....
I, the deponent above named do hereby solemnly affirm and declare as under:
That I am the Proprietor/Authorized signatory of M/s.....
Having its Head Office/Regd. Office
at.....

That the information/documents/Experience certificates submitted by M/s..... along with the tender for (NAME OF WORK) To CNLU Ltd. are genuine and true and nothing has been concealed.

I shall have no objection in case CNLU verifies them from issuing authority(ies). I shall also have no objection in providing the original copy of the document(s), in case CNLU demand so for verification.

I hereby confirm that in case, any document, information & / or certificate submitted by me found to be incorrect / false / fabricated, CNLU at its discretion may disqualify / reject / terminate the bid/contract and forfeit the EMD / All dues.

I shall have no objection in case CNLU verifies any or all Bank Guarantee(s) under any of the clause(s) of Contract including those issued towards EMD and Performance Guarantee from the Zonal Branch /office issuing Bank and I/We shall have no right or claim on my submitted EMD before CNLU receives said verification.

That the Bank Guarantee issued against the EMD issued by (name and address of the Bank) is genuine and if found at any stage to be incorrect / false / fabricated, CNLU shall reject my bid, cancel pre-qualification, and debar me from participating in any future tender for three years.

I,, the Proprietor/Authorised signatory of M/s..... do hereby confirm that the contents of the above Affidavit are true to my knowledge and nothing has been concealed and that no part of it is false.
Verified at this..... day of

DEPONENT

ATTESTED BY

(NOTARY PUBLIC)

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

AGREEMENT FORM

This agreement made on day of DD-MM-YY, between the CHANAKYA NATIONAL LAW UNIVERSITY, (hereinafter referred to as the “CNLU” which expression shall include its administrators, successors, executors and assigns) of the one part and M/s.....(hereinafter referred to as the “Contractor” which expression shall unless the context requires otherwise include its administrators, successors, executors and permitted assigns) of the other part WHEREAS, CNLU, has desirous ofunder required work (hereinafter referred to as the “PROJECT”) had invited tenders as per tender documents vide Tender No..... AND WHEREAS M/s And Contractors had participated in the above referred tender vide their tender opened on DD.MM.YY and CNLU has accepted their aforesaid tender and issued Letter of Intent for

on the terms and conditions contained in its Letter of Intent No. Ref. Date.DD.MM.YY and the documents referred to therein, which have been unequivocally accepted by M/svide their acceptance letter along with performance bank guarantee dated DD.MM.YY resulting into a contract. NOW THEREFORE THIS DEED WITNESSETH AS UNDER:

ARTICLE 1.0 – AWARD OF CONTRACT

SCOPE OF WORK CNLU has awarded the contract to M/s for the work of on the terms and conditions in its Letter of Intent No. Ref. PATNA, Date: DD.MM.YY and the documents referred to therein.

The award will take effect from the date of issue of work order. The terms and expressions used in this agreement shall have the same meanings as are assigned to them in the “Contract Documents” referred to in the succeeding Article.

ARTICLE 2.0 – CONTRACT DOCUMENTS

The contract shall be performed strictly as per the terms and conditions stipulated herein and in the following documents attached herewith (hereinafter referred to as “Contract Documents”). CNLU Notice Inviting Tender No.....CNLU’s tender documents consisting of:

- Section 1 to 3: NIQ, Instruction to Bidder and Clauses of Contract
- Section 5: Scope of Work and Special Conditions of Contract
- Section 6: Technical Specification
- Section 7: Drawing
- Section 8: Bill of Quantity

Letter of Intent Ref. No /CNLU/PATNA, Date: ISSUED BY
CNLU

Acceptance letter and performance guarantee submitted by M/s

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

All the aforesaid contract documents referred to in Para above shall form an integral part of this Agreement, in so far as the same or any part thereof column, to the tender documents and what has been specifically agreed to by CNLU in its Letter of Intent. Any matter inconsistent therewith, contrary, or repugnant thereto or deviations taken by the Contractor in its "TENDER" but not agreed to specifically by CNLU in its Letter of Intent, shall be deemed to have been withdrawn by the Contractor without any cost implication to CNLU. For the sake of brevity, this Agreement along with its aforesaid contract documents and work order (Letter of award) shall be referred to as the "Contract".

ARTICLE 3.0 – CONDITIONS & CONVENANTS

The scope of Contract, Consideration, terms of payments, advance, security deposits, taxes wherever applicable, insurance, agreed time schedule, compensation for delay and all other terms and conditions contained in contract document and CNLU's Letter of award (Work order) are to be read in conjunction with other aforesaid contract documents. The contractor shall duly perform the contract strictly and faithfully in accordance with the terms of this contract. The scope of work shall also include all such items which are not specifically mentioned in the Contract Documents, but which are reasonably implied for the satisfactory completion of the entire scope of work envisaged under this contract unless otherwise specifically excluded from the scope of work in the Letter of Intent. Contractor shall adhere to all requirements stipulated in the Contract documents. Time is the essence of the Contract and it shall be strictly adhered to. The progress of work shall conform to agreed works schedule/contract documents and Letter of Intent. This agreement constitutes full and complete understanding between the parties and terms of the presents. It shall supersede all prior correspondence to the extent of inconsistency or repugnancy to the terms and conditions contained in Agreement. Only a written instrument shall affect any modification of the Agreement signed by the authorized representative of both the parties. The total contract price for the entire scope of this contract is item rate quoted by M/s Totaling to Rs.

..... which shall be governed by the stipulations of the contract documents.

ARTICLE 4.0 – NO WAIVER OF RIGHTS

Neither the inspection by CNLU or the Engineer-in- Charge or any of their officials, employees or agents nor order by CNLU or the Engineer-in- Charge for payment of money or any payment for or acceptance of, the whole or any part of the work by CNLU or the Engineer- in- Charge nor any extension of time nor any possession taken by the Engineer-in- Charge shall operate as waiver of any provisions of the contract, or of any power herein reserved to CNLU, or any right to damage herein provided, nor shall any waiver of any breach in the contract be held to be a waiver or any other or subsequent breach.

ARTICLE 5.0 – GOVERNING LAW AND JURISDICTION

The Laws applicable to this contract shall be the laws in force in India and jurisdiction of PATNA Court (s) only. Notice of Default Notice of default given by either party to the other party under the Agreement shall be in writing and shall be deemed to have been duly and properly served upon the parties hereto, if delivered against acknowledgment due or by FAX or by registered mail duly addressed to the signatories at the address mentioned herein above. IN W ITNESS W HEREOF, the parties through their duly authorized representatives have executed these presents (execution whereof has been approved by the Competent Authorities of both the parties) on the day, month and year first above mentioned at PATNA.

WITNESS:

1..... (Owner's Signature)
Printed Name
2. (Designation)
Company's Stamp

1. (Contractor's signature)

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

2.

Printed name

(Designation)

Company's stamp

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION-5

SCOPE OF WORK

&

SPECIAL CONDITION OF CONTRACT

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SCOPE OF WORK

1. “Augmentation of existing substation (SH: Replacement of HT Panel, ACB, pvdg new feeder pillar & LT cable)”

The scope of work covered in this tender shall be as per the Bill of Quantities, specifications, drawings, instructions, orders issued to the contractor from time to time during the pendency of work. The drawings for this work, which may be referred for tendering, provide general idea only about the work to be performed under the scope of this contract. These may not be the final drawings and may not indicate the full range of the work under the scope of this contract. The work will be executed according to the drawings to be released as “GOOD FOR CONSTRUCTION” from time to time by the Engineer-in-charge of CNLU and according to any additions/ modifications/ alterations/ deletions made from time to time, as required by any other drawings that would be issued to the contractor progressively during execution of work. It shall be the responsibility of the contractor to incorporate the changes that may be in this scope of work, envisaged at the time of tendering and as actually required to be executed.

The quantities of various items as entered in the “BILL OF QUANTITIES” are indicative only and may vary depending upon the actual requirement. The contractor shall be bound to carry out and complete the stipulated work irrespective of the variation in individual items specified in the bill of quantities. The variation of quantities will be governed as per clause given in tender document.

1. The contractor is to give the guarantee for One year against all installation and equipment defects.
2. The scope of work will be as per the work description mentioned in Appendix -I of this document
3. The EMD shall be adjusted in amount of performance security. Successful bidder will deposit amount of performance security @ 3% of agreement value, after deducting amount of EMD, in form of **NEFT / RTGS** at the time of agreement. Thus, initial Performance security will be @ **5% (Five Percent)** of the agreement value along with additional performance as applicable. Balance 5% of performance security will be deducted from on account running bills. Performance Security will be refundable after **60 days of successful completion of defect liability period i.e., One Year**. No interest will be payable on the earnest money as well as Performance Securities.
4. The Rate should be quoted including All taxes and GST nothing shall be paid extra except Quoted rates. (If any rise in tax or if new tax is imposed by central or State Govt, or any Govt authority after Tender the contractor is to bear the same).
5. All the Civil work Should be repaired with original material including coloring if any breakage or dismantling work is done during installation of the system, including cleaning of the site, for which no extra payment shall be made to the contractor.
6. The rates to be given for furnished complete work, all material, labor wastage, royalties, taxes, lease rent, scaffolding, transportation charges, breakage, making good any damage to wall, ceiling, fitting etc., to make the original finish including painting, transportation, replacement, of any defective material, theft, insurance, variation in market rates, removal of rubbish dismantled material, cleaning of site be included in the quoted rates.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

7. The contractor is to arrange for storage of material & its Security arrangement During the installation & commissioning of work.

8. The contractor should submit the one-year defective part replacement guarantee, caused due to any reason.

9. The contractor will be fully responsible for any accident, damages, losses, that occurs during the installation & commissioning of work. No compensation will be made by the CNLU.

10. The contractor is to take all measures for safety and security for man & material and to follow all labor laws.

11. The Rates should be quoted for at site PATNA.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SPECIAL CONDITIONS OF CONTRACT (SCC)

GENERAL-

1.1. The following special conditions shall be read in conjunction with General conditions of contract. If there are any provisions in these Special Conditions, which are at variance with the provisions of General Conditions of Contract, the provisions in the Special Conditions shall take precedence.

1.2. Where any portion of Special Conditions of Contract is repugnant to or at variance with any provision of the instructions to Bidder and General Conditions of Contract and / or the other documents forming part of the contract then unless a different intention appears the provision of the Special Conditions of Contract shall be deemed to override the provisions of the general conditions of contract and / or the other documents forming part of the contract only to the extent such repugnant/various in the special conditions of contract as are not possible of being reconciled with the provisions in the special conditions of contract as are not possible of being reconciled with the provision with instructions to Bidder or General Conditions of contract and / or the other documents from part of the contract.

1.3. Working drawing shall be according to the drawing given in the Tender document.

1.4. Items mentioned in the BOQ may vary or any changes is needed then it should bring to the attention of CNLU.

1.5. Working drawings are given by CNLU in tender document; if any deviations found and correction required then it should be brought to CNLU for rectification.

1.6. The items which are missing or not defined in the given BOQ in this Tender Document then the contractor must submit the items for approval to CNLU.

1.7. The contractor must submit sample of the items defined in BOQ the same to be approved by CNLU, before use.

1.8. Internal wiring work should be done as per CPWD/CONCERNED STATE PWD Specifications.

1.9. Bidder must be submitted all kind of Testing reports related to material, commissioning, and installation, if desired by Engineer-In-Charge.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION-6

TECHNICAL SPECIFICATIONS & LIST OF APPROVED MAKES

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

CONTENTS

Sr. No.	Section No.	Description
1.	Section 1	General
2.	Section 2	High Voltage Panel
3.	Section 3	MV Feeder Panels & ACB
4.	Section 4	Cable Works
5.	Section 5	Earthing System
6.	Section 6	List Indian Standards
7.	Section 7	List of Approved Make

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION 1 GENERAL

1.1 SCOPE:

These general specifications cover the details of Sub Station Equipment (HT Panels, and other related items) to be supplied, the inspection as may be necessary before dispatch, delivery at site, installations, testing, commissioning, putting into operation and handing over in working condition of the equipment for sub-stations for working voltage of 33000/433 volts. The general specifications are subject to revision from time to time. The tender specifications for a particular job shall clearly indicate the applicable version of these specifications.

1.2 CONFORMITY WITH STATUTORY ACTS, RULES, REGULATIONS, STANDARDS AND SAFETY CODES:

1.2.1 Indian Electricity Act and Rules:

All electrical works in connection with installation of electric sub-stations shall be carried out in accordance with the provisions of Indian Electricity Act, 2003 and the Indian Electricity Rules 1956 amended upto date. Wherever Indian Electricity rule numbers have been indicated, they are based on I.E., rules 1956 amended up to date.

1.2.2 CPWD Specifications:

The electrical works shall also conform to CPWD. General Specifications for Electrical Works Part I (Internal) 2013, Part IV (Sub Station) and Part II (External) 1994 as amended upto date wherever relevant and applicable.

1.2.3 Indian Standards:

The sub-station equipment and their installation shall conform to relevant Indian standards.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION 2 **HIGH VOLTAGE PANEL**

2.1 SCOPE:

These specifications cover the detailed requirements for supply, installation, testing and commissioning of High Voltage Panels.

2.2 TYPE OF PANELS:

2.2.1 Vacuum circuit breaker.

2.2.2 Gas filled Circuit Breaker:

These breakers are new in the market and are being used for 33KV and above in power distribution. These may use on selective basis based on their availability, serviceability, and cost.

2.2.3 Gas insulated compact Switchgears with Vacuum Circuit Breakers. These are recently introduced and may be used in cases of space crunches judiciously. However, the discussions shall be limited to only Vacuum Circuit Breakers.

VACUUM CIRCUIT BREAKER

2.3 H.V. PANEL

2.3.1 The Panel board shall be of indoor type, having the incoming sectionalization and outgoing switch gears as per IS 13118-1991 of VCB, IEC 62271-100 for Breakers and -200 for Panels/IS 3427 of switch board. The degree of enclosure protection shall be IP-4X.

Detailed requirements shall be in accordance with the schedule of works at Appendix-II.

2.3.2 Rating:

All panels assembled to form a board shall be suitable for the nominal operation voltage and rupturing capacity as specified. They should be rated as specified with a minimum of rating as mentioned in BOQ. And suitable for operation on 33 KV, 3 phase 50 Hz system. Type test certificate for the breaking capacity of the panel shall be supplied. A circuit breaker for a given duty in service is best selected by considering the individual rated values required by load conditions and fault condition.

2.3.3 Type:

The HV panel Board shall be metal clad, indoor, floor mounting, free standing type. It shall be totally enclosed dust, damp, and vermin proof.

2.3.4 General Construction:

Separately earthed compartments shall be provided for circuit breakers, bus bars, relay & instruments, CT&PT, and cable boxes, fully and effectively segregating these from one another so that fault in any one compartment do not cause damage to equipment(s) in other compartment(s).

The housing shall be of bolted construction to ensure compact and rigid structure, presenting a neat and pleasing appearance. The sheet steel used should not be less than 2mm thick.

The panels shall be bolted together to form a continuous flush front switch gear suitable for front operation of board and for extension at both ends.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

2.3.5 General Design Aspects:

The HV panel board shall be designed such that the switchgear, instruments, relays, bus bars, small wiring etc. are arranged and mounted with due consideration for the followings: -

- ❖ Facility for inspection, maintenance and repairs of testing terminals and terminal boards for ease of external connection.
- ❖ Minimum noise and vibrations.
 - Risk of accidental short circuits and open circuits.
 - Secured and vibration proof connections for power and control circuits.
- ❖ Risk of accidental contact and danger to personnel due to live connections.
- ❖ Mountings at approachable height.

2.4 CIRCUIT BREAKER:

2.4.1 General Arrangements:

The circuit breaker panels shall be complete with the following:

- Racking in / Racking out mechanism.
- Isolating plugs and sockets.
- Mechanical inter-locks and safety shutters.
- Mechanical ON/OFF indicator.
- Minimum of 4 NO and 4 NC Auxiliary contacts directly operated by the circuit breaker. Additional NO & NC contacts can be provided with auxiliary contactors.
- Anti-condensation space heaters suitable for operation on 240V, 50 Hz A.C. for each panel wherever specified.
- Suitable tripping arrangement
- Mechanical counter to assess the total number of operations of the breaker (if asked for specifically).

2.4.2 Type:

The circuit breaker shall be of horizontal/ vertical isolation, horizontal draw out pattern.

2.4.3 Breaker Truck:

The breaker carriage shall be fabricated from steel, providing a sturdy vehicle for the circuit breaker and its operating and tripping mechanism. The carriage shall be mounted on wheels, moving on guides, designed to align correctly and allow easy movement of the circuit breaker and for removing the carriage for inspection and maintenance purposes. Vacuum interrupters shall be hermetically sealed and shall be designed for minimum contact erosion, fast recovery of dielectric strength, maintenance free vacuum interrupter, suitable for auto-reclosing. The drive mechanism shall preferably be provided with facility for pad locking at any position namely, "Service", "Test" and "Fully Isolated". It should be possible for testing the circuit breaker for its operation without energizing the power circuit in the "Testing" position. The contacts shall be made only after the breaker is inserted into service position. Interlocking should prevent contacts from being disconnected if circuit breaker is tried to be moved from service position.

2.4.4 General Features:

Single break contacts are provided in sealed vacuum interrupter.

2.4.5 Rating:

The circuit breakers shall be continuously rated as specified with a minimum rated current as mentioned in BOQ. With voltage rating and breaking capacity as specified.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

2.4.6 Operating Mechanism:

The operating mechanism shall be one of the following as specified: -

Manually operated spring charged / motor wound spring charged with both mechanical and electrical release for closing. The operating mechanism shall be trip free.

2.4.7 External auxiliary supply shall be made available for charging motors & heaters operation.

2.5 BUS BAR SECTION:

2.5.1 General Requirement:

The switch board shall be single bus bar pattern with air insulated encapsulated bus bars housed in a separate compartment, segregated from other compartments.

Material: The bus bars shall be of high conductivity electrolytic copper. The bus bars shall be sized for carrying the rated and short circuit current without over-heating. Maximum bus bar temperature shall not exceed 95-degree C.

2.1 CURRENT TRANSFORMER:

2.6.1 General Requirements:

Accommodation shall be provided in the circuit breaker panel to mount one set of three numbers dual core dual ratio CTs for metering and protection purposes. Access to the CTs for cleaning, testing, or changing shall be from the front, back or top of the panel.

2.6.2 Rating:

Dual core & dual ratio CTs of suitable burden (but not less than 15 VA) shall be preferred with 5 Amps secondary. The ratio shall normally be one of the following as specified and required at site.

Note: CT ratio shall be compatible with the loading pattern on HV side.

The CTs shall conform to relevant Indian Standards. The design and construction shall be robust to withstand thermal and dynamic stresses during short circuits. Secondary terminals of CTs shall be brought out suitably to a terminal block which will be easily accessible for testing and terminal connections. The protection CTs shall be of accuracy class 5 P 10 of IS 2705- Part III-1992.

The metering CTs shall conform to the metering ratio and accuracy class 0.5 of IS 2705-1992 for incomer and class 1 for outgoing Panels.

2.2 VOLTAGE TRANSFORMER:

2.7.3 General Requirements:

A voltage transformer of burden not less than 100 VA and of proper ratio as specified shall be provided at the incoming panel.

The accuracy class for the VT shall be class 0.5 as per IS 3156 parts I to III for incomer and class 1 for outgoing Panels.

The transformer shall be of cast epoxy resin construction. It shall be fixed /withdraw able type. HRC fuses/MCBs shall be provided on both HV and LV sides.

2.3 PROTECTION AND TRIPPING ARRANGEMENT:

2.8.1 Protection:

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

The Relays shall be microprocessor based numerical relays with O/L, E/F and S/C protection Tripping relay shall be used for tripping signal to the Shunt Trip Coil of Circuit Breaker operating on 24V/30V D C supply / Power pack / 110 V VT supply.

Note: - 24V/30V DC shall be provided through 2 No. SMF batteries of 12/15 volts of minimum 26 AH capacity with a battery charger as per recommendation of the manufacturer both for protection as well as indications.

Alternatively, Power Pack converters fed through PT/230V externally could be provided with 2 Nos., 12/15-volt, 7 AH SMF batteries (Power pack with condenser / capacitor backup are also available which do not need batteries, these should not be used) for tripping. In cases where tripping is fed through PT, VA burden of PT shall be suitably increased (say 200 VA) as recommended by the manufacturer depending upon the number of panels and connected controls. In addition, external 24 volt / 30-volt DC supply shall be provided for indications etc. through 2 No. SMF batteries of 12/ 15 volts of minimum 26 AH capacity with a battery charger as per recommendation of the manufacturer.

2.8.2 **Relays:**

Over current Relays shall have adjustable setting for current from 50% to 200% and earth fault from 10% to 40% or 20% to 80%. These should be of manual reset type. All relays shall have a LED indicator which will indicate operation for each function. It shall be possible to reset it only by manual operation. The number and types of relays shall be as specified.

2.4 **SMALL WIRING:**

The small wiring shall be carried out with minimum 1.5sq. mm FRLS/HFFR insulated copper conductor cables. CT wiring shall be done with minimum 2.5 sq mm wires with colour code: RYB, Gray for auxiliary DC circuits and Black for auxiliary AC circuits the wiring shall be securely fixed and artfully arranged to enable easy tracing of wires. Identification tags shall be fitted to all wire terminals to render identification easy and to facilitate checking in accordance with IS

375. Necessary terminal blocks and cable entries shall be provided for RTD relay wiring, power supply etc.

2.5 **METERING INSTRUMENT, PANEL ACCESSORIES (DIGITAL):**

2.10.1 **Metering:**

Energy metering shall be done either on the incomers or on the feeders as specified in Appendix II.

2.10.2 **Voltage Selection Scheme:**

Where a bus coupler is incorporated and only one incomer feeder (out of two available) is intended to be operated at a time, a VT Transfer Relay shall be incorporated to provide necessary potential for metering. This will be necessary when energy metering is done on individual feeders or where VT supply is used for trip circuits. Alternatively, PTs shall be provided on both the bus sections (incomers) with individual metering on each incomer.

2.10.3 **Instrument Panels:**

The instrument panel shall form part of the housing. Relays, meters, and instruments shall be mounted as per general arrangement drawings to be submitted by the tenderer. They shall be preferably of flush mounting type at a maximum height of 1800 mm.

2.10.4 **Instrumentation:**

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

- A voltmeter of class 1.5 accuracy as per IS-1248 shall be provided at each incomer panel, with selector switch. The instrument shall be calibrated for the ranges specified.
- Energy meters of class 1.0 conforming to IS. 722 (Part IX) and power factor meter of class of accuracy of 2 shall be provided, if specified.
- Ammeter of specified range of class 1.5 accuracy as per IS-1248 shall be provided at both incomer and outgoing panels along with necessary selector switches.
- The panel assembly shall also take care of the following requirements:
 - (i) Lamp indication shall be provided to indicate ON/OFF (BY red, green respectively) of switch gear.
 - (ii) Panel illuminating lamp.
- Mechanical indication for spring charged status. If possible, an indicating lamp could be provided.
- Lamp indicating tripping at fault status.
- Healthy trip supply shall be indicated by clear lamp.
- Separate fuses/MCBs shall be provided for lamps, heaters, voltmeters, and other instrumentation etc. on each panel.
- Anti-condensation space heaters shall be provided, and shall be suitable for operation on 240 V, 1 phase, 50 Hz A.C. for each panel if specified.
- Where there is more than one incomer and bus sections, these shall be castle key interlocked as per interlocking scheme as specified.

2.6 **CABLE BOXES:**

Cable boxes shall be situated in a compartment at the rear/ side of the housing as specified.

2.7 **CABLE ENTRY:**

Provision for top (bus ducts preferred for top entry) / bottom or such other side entry shall be made as per requirement with sufficient head room for cable termination. 3mm thick removable gland plate shall be provided for cable termination.

2.8 **EARTHING:**

The earthing of the breaker body and moving portion shall be so arranged that the earthing of the non-current carrying structure to the frame earth bar is completed well before the main circuit breaker plugs enter the fixed house sockets.

The entire panel board shall have a common tinned copper earth bar of suitable section with 2 earth terminals for effectively earthing metallic portion of the panels. The frame earthing of panel shall be in accordance with Section 7 of this specifications.

2.9 **INSTALLATION:**

The installation work shall cover assembly of panels lining up, grouting the units etc. In the case of multi panels switch boards after connecting the bus bar all joint shall be insulated with HV insulation tape or with approved insulation compound. A common earth bar shall be run preferably at the back of the switch board connecting all the sections for connecting the earth system. All protection, indications & metering connections and wirings shall be completed.

Where trip supply battery is installed the unit shall be commissioned, completing initial charging of the batteries. All relay instruments and meters shall be mounted and connected with appropriate wiring. Calibration checks of units as necessary and required by the licensee like CTs, VTs Energy Meters etc. shall be completed before pre-commission checks are undertaken.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

2.10 TESTING AND COMMISSIONING

Procedure for testing and commissioning of relay shall be in general accordance with good practice.

Commissioning checks and tests shall include in addition to checking of all small wiring connections, relays calibration and setting tests by secondary injection method and primary injection method. Primary injection test will be preferred for operation of relay through CTs. Before panel board is commissioned, provision of the safety namely fire extinguishers, rubber mats and danger board shall be ensured. In addition, all routine megger tests shall be performed. Checks and test shall include following.

- Operation checks and lubrication of all moving parts.
- Interlock function checks.
- Continuity checks of wiring, fuses etc. as required.
- Insulation tests.
- Trip test and protection gear tests.
- The complete panel shall be tested with 5000V megger for insulation between poles and poles to earth. Insulation test of secondary of CTs and VT to earth shall be conducted using 500V megger.
- Any other tests as may be required by the Licensee / Inspector shall be conducted.
- Where specified, the entire switch board shall withstand high voltage test after installation.
- Any other test required by the consignee/inspecting officer.

SECTION -3 **MV Feeder Panel & ACB**

3.1. The Scope of Work covers the design, manufacture and supply Power panel from reputed manufacturer having type tested from CPRI/ERDA or any other NABL accredited test lab for 70 KA Short Circuit withstand test, IP 42 and temperature rise test for 4000 amp panel. The test certificate shall be within 7 years from date of submission drawings. Panel manufacturer shall have manufacturing unit or service arrangement within 100 kms of site for quick after sales service. The panel manufacturer shall have minimum 10 years experience in manufacturing as CPRI tested panel manufacturer. The panel shall be suitable for 415 volts 50 Hz 4 Wire System incorporating Circuit breakers of various types, bus bar, interconnections, metering etc meeting the requirements shown in the schedule of quantity and schematic diagrams and as specified.

3.2 CONSTRUCTION FEATURES:

- a. M. V. Panel Board shall be extensible modular type sheet steel (CRCA) cubicle, indoor floor mounting and dead front freestanding type, The design shall be totally enclosed, completely dust tight and vermin proof conforming to IP:42 degree of protection. The sheet steel used shall be 2.00 mm thick for load bearing and 1.6 mm for other sections. Partitions shall be 1.6 mm CRCA sheet or 1.0 mm thick wire mesh fixed on a frame work of 1.6 mm thick CRCA sheet, Neoprene Gaskets or synthetic katings of 5 mm thick shall be used between all adjacent units and beneath all covers to render the joints effectively dust proof. Sheet steelwork shall be of high quality. All openings and outlets in the doors shall be machine made and shall be free from burrs. Weld rags shall be ground smooth. All sheet surfaces shall be free from dents and hammer marks. A base channel of 75 mm X 40 mm fabricated out of 5 mm thick hot rolled sheet steel painted black shall be provided to prevent corrosion of the sheet steel cubicles. For convenience of operation and ease of cable termination, there shall be a gap of at least 150 mm between the floor level and the bottom-most unit. Folded gland plates of adequate size made of 2 mm thick MS sheet, properly screwed to the panel base shall be provided.
- b. Each incoming circuit breaker/switchgear shall be housed in a separate enclosure and the panel shall conform to Form 4b Type 2 design of compartmentalization for incoming and Form 3a for outgoing as per IEC 60439-1
- c. Segregation between adjacent units shall be done with Metallic vertical and horizontal barriers or by complete insulation of all live parts. Control cables shall be segregated from primary conductors. **No Hylam or PVC Sheet or any other hygroscopic material to be used for segregation.**
- d. All instruments, indicating lamps, control contactors etc for each circuit breaker shall be provided with separate compartments and shall be suitable for access for testing and maintenance without any danger of accidental contact with live parts of the circuit breaker, busbar and connection. However, for MCCB outgoing, LED lamps and fuses etc can be mounted on the compartment doors only.
- e. The Panel shall be provided with hinged cover duly earthed and door covers shall open up to 125 degree.
- f. The design of frame work and end covers shall be such as to require a minimum number of screws visible from outside. The framework shall be made of steel sheets folded to impart strength, which will also serve as continuous barriers between logically arranged switchboard components. The arrangement of

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

horizontal and vertical bus bars, switchgear compartment and cable space shall be used on modular construction.

- g. The switchboards shall be easily extensible and shall have high degree module flexibility. The arrangement shall be logically compact and neat. Each module shall be fitted with individual dust proof doors provided with insulated thumbscrews/key operated SP Locks. The switchboard shall have uniform height and depth throughout its length and shall present a flush appearance. The maximum operation height shall not exceed 2000 mm . Adequate lifting facilities shall be provided for each shipping section to facilitate handling and transport. The compartment doors shall be so inter locked that it shall not be possible to open the doors with the switch in closed position. An arrangement for defeating this door interlock shall be provided for purposes.
- h. Outgoing links from feeders shall be rigidly supported and suitably extended in cable box chamber for case of cable connections. Cable lugs and links shall be covered by insulated shields. Barriers shall be provided between the modules accommodating equipment associated with the outgoing circuits. All vertical sections shall have covering at the bottom so that entry of dust, rats and vermin is not possible.

3.3. AIR CIRCUIT BREAKER PANEL/MCCB:-

- A. **Release:** Microprocessor type release, self-powered, true RMS sensing.
- B. Draw Out : Electrically operated motorized Manually Draw Out/ Outgoings shall be Non motor operated Manually Draw Out type
- C. Closing Time- 70 mili sec. & Opening Time.
- D. All 4P ACBs shall have fully rated neutral equal to the rating of the breaker with protection at N/2 & N.
- E. Breaker shall have U/V release and shunt trip coil.
- F. Minimum 6 nos. of NO and 6 nos. of NC auxiliary contacts are to be provided.
- G. Breaker shall have automatic shutter, positive locking, safety catch, door interlock and operating handle.
- H. Breaker shall have clear indications such as ON, OFF, Spring Charged, Fault Trip, Services, Test and Isolation.
- I. Breaker shall have arc chute on each phase.
- J. Interlocking: i) Not Possible to withdraw CB in On Position and Not Possible to Switch On until CB is in fully insert or test Position.
- K. Protection : a) Over Load :- 40 % to 100 % (Time Setting from 0.5s, 1s, 2s, 4s or as Applicable)
b) Short Circuit : 1.5 Times to 10 times of O/L Setting (Time delay from 0 to 400 ms)
- L. Short Circuit rating : $I_{cu} = I_{cs} = I_{cw} = 50 \text{ KA}$. The Circuit breaker shall be of the air break type in order to eliminate fire and explosion risk. The air circuit breaker shall be of robust and compact design and compact design and with a rupturing capacity as specified in schedule/ specifications.
- M. ACB shall be provided with a front display unit measuring Amp (Phase, neutral and ground), V, PF, KW, KVA, KVA_r, KWH, % unbalance and breaker maintenance data like trip history, number of operation etc.
- N. ACB should have minimum 4 time delay setting in LSG.
- O. ACB shall be suitable for Zone selective interlocking.
- P. ACB shall have Rogowski CT, thermal memory, 10 trip history etc.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

- Q. ACB shall be communicable on Modbus TCP / IP protocol (Ethernet) with monitoring, reporting of On/Off/Trip/Meter measurement indication through remote web pages without use of any external software.

3.4 CONSTRUCTION OF ACB:

The basic unit shall consist of horizontal withdrawals pattern, Four/ three pole fully interlocked independent manual spring operated air circuit breaker. The operating mechanism should be such that the circuit breaker is at all times free to open immediately when the trip coil is energized. All current carrying parts in the breaker shall be silver plated and suitable arcing contacts shall be placed to protect the main contacts. Arch chutes shall be provided for each pole and these should be suitable for being lifted out for the inspection of main and arcing contacts.

3.5 CONTACTS AND EARTHING:

Self-aligning cluster type isolating contacts shall be provided for the circuit breaker. Plug connections including those for auxiliary and control wiring should be fitted with self-aligning contacts. The fixed portion of the plug connections should have easy access for maintenance purpose. The frame of the circuit breaker should be positively earthed when the breaker is racked into the cubicle.

3.6 INTERLOCKS

Sequence type strain free interlocks shall be provided to ensure the following :-

It shall not be possible for the breaker to be withdrawals from the cubicle when in 'ON' position.

3.7 HEAVY DUTY COMPOSITE UNITS OF AIR BREAK SWITCHES AND FUSES.

All switches shall be operated from the front and shall conform to IS 4047 & IEC 60947-2. The rating of switch fuses shall be as specified. Outgoing feeders shall be neatly arranged in different compartment. Normally switches for individual feeders shall be accommodated in separate modules.

3.8 MCCB

- a) All MCCBs Shall be four pole unless and until specifically mentioned.
- b) MCCBs upto 250 A will be 25 KA and above that shall be 36 KA. The releases upto 250 amp MCCB shall be thermo magnetic type(Range 70% to 100%) and above that shall be Micrologic type for overload and shortcircuit protection.
- c) All MCCBs Shall have fully rated neutral equal to rating of the breaker with protection at N/2 & N.
- d) All MCCBs Shall be provided with Arc Chute.
- e) All MCCBs Shall be provided with spreader links at both terminals.
- f) All MCCBs Shall be provided with door interlocking extended Rotary Handle.
- g) All MCCB shall be communicable on Modbus TCP / IP protocol (Ethernet) with monitoring, reporting of On/Off/Trip.

3.9 COMMUNICATION

In case of main LT Panel, Panel shall contain suitable industrial duty Ethernet wifi switch to monitor ACB, MCCB status and meter data. Required SMPS/ battery for continuous monitoring and communication shall be provided. Other SDB and feeder pillars shall not have this facility.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

3.10 BUS BARS:

- a) Three Phase & neutral Aluminum. Bus bars shall be provided of specified rating. Bus bar selection shall be designed for 0.8 amp per sqmm and suit the short circuit rating as well as temperature rise of 60 degree over an ambient temperature of 45 degree (neutral bus rating will be same as phase bus).
- b) Bus bar shall be housed in separate bus bar chambers. Horizontal busbars shall extend through out the length of the panels. The bus bars shall be suitably braced to withstand the fault level and shall be supported on unbreakable non-hygroscopic phenolic laminated sheet/bus bar insulators rigidly held to the framework of the chamber. Bus bar chamber shall have a separate screwed cover. Bus Bar Chamber shall have an additional internal cover made of transparent fiber sheet so to prevent accidental contact with bus bar in case the cover on top is left open in bus bar live condition.
- c) Bus bar shall be insulated with heat shrinkable sleeves in distinguished color so as to identify the various phases of the busbars. No exception to this will be considered.
- d) Vertical busbars shall be accessible from the front. Cable runs shall not prevent or obstruct the access to vertical busbars. The vertical busbars shall be arranged as close to the units as possible. The connection between adjacent sections of bus bars shall not short and neat long link connections of size not less than 200 mm shall be provided. Connection between horizontal and vertical bus bar shall be made by overlapping the vertical bus bar over horizontal bus bar covering its full wide section. Vertical Bus bar shall be of the same capacity as horizontal bus bar.
- e) Minimum clearance between phase to phase of the bus bar shall be 32 mm and between phase to neutral 32 mm, including protruding nuts and bolts, if any.
- f) Horizontal bus bar shall be designed for easy extension in future.
- g) All bus bar connections in switch boards bolted with high tensile strength SS bolts and nuts and shall be provided with plain washer and spring washer. The nuts used for all live part connections shall be provided with steel inserts to prevent loose connection and heat.(Helicoils)

3.11 CABLE COMPARTMENTS:

A full height cable compartment running behind the vertical models shall be provided for easy termination of all incoming and outgoing cables entering either from top or from bottom. Adequate supports shall be provided for the cables where necessary. The cable compartment shall have its own hinged cover, which can be removed for ease of access during cabling.

3.12 INTER CONNECTION AND CONTROL WIRING :

- a) Switchboard shall be completely factory wired ready for connecting to the equipment. Power connection of the circuits shall be done by Cu. Flats. All switchgears shall be provided by aluminum terminals for connecting adequate nos. of cable and the terminals shall be brought out in the cable alley, in conformation to form 4b type 2 / 3a of segregation of Panel.
- b) Control wiring shall be done by FRLSZH class PVC insulated 1100 Volts grade copper conductor wires. **Size of wire for CT connections shall be 2.5 Sq. mm and for PT connections. it shall be Size 1.5 Sq. mm.**
- c) All control wiring shall be fitted with identification ferrule at each end and not more than two connections shall be made at any one terminal. The wires shall be arranged and supported in such a manner that there shall be no strain on the terminations.
- d) Wiring shall be terminated by using crimping lugs.
- e) Wiring shall be neatly dressed and shall be as much as possible, enclosed in a Perforated PVC channel.

3.13 TERMINAL ARRANGEMENTS :

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

The termination shall be of adequate current rating and size to suit individual feeder requirements. For connections above 63 amps cable lugs shall be used. These cable lugs shall be mounted in such a manner so as to facilitate easy cable connection. Terminals shall be mounted in the cable compartment. Tap of connections at the busbar shall be made with nuts, bolts and washers. Busbars shall not be treaded for terminating wire connection.

3.14 CABLE ENTRY :

- a) The switchboard shall be designed to facilitate 1100 volt grade Copper/Al. Conductor PVC cable entry from top and / or bottom as the case may be. Removable Galvanized sheet steel plates of 3.0 mm thickness shall be fitted at the top / bottom.
- b) Sufficient numbers of supporting clamps and brackets to hold the cable in position shall be provided.
- c) Cut outs for cable glands shall be provided as per the direction of Engineer-In-Charge.

3.15 INDICATION INSTRUMENTS: -

The indicating instruments shall be of a reputed make confirming to relevant I. S. The arrangement of the instruments shall be logical. The size of the instruments shall be as specified.

3.16 LABELS:

Aluminum / PVC laser engraved labels shall be provided on all the incoming and outgoing feeder compartments. The exact legend to be engraved will be furnished by the Department.

3.17 EARTHING BUS BARS:

- a) The earth busbars shall be 50 mm X 10 mm aluminum strip suitably tightened to the enclosure body and shall run along the length of the panel and shall be brought out so as to terminate earthing conductors needed to provide earthing connectivity to the panel.
- b) The frame of the circuit breaker shall be positively earthed when racked into the cubicle.

3.18 PAINTING:

- a) All steelworks shall undergo a 7 tank process of degreasing, pickling in acid, cold rinsing, phosphating, passivating and then be painted with dry epoxy paint in Siemens gray RAL 7032 shade.
- b) Painting thickness shall not be less than 65 microns.
- c) Panel manufacturer must have in house powder coating facility with 7 tank process facility.

SECTION -4 **CABLE WORKS**

This section covers supply, laying and jointing as required and testing and energizing all cable work.

4.1 SPECIFICATION OF CABLE:

- 5.1.1 33 KV grade XLPE insulated PVC sheathed armored Aluminum/Copper cable shall be 3 cores earthed of sizes as specified. The cable shall conform to IS-1554, Part II.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

- 5.1.2 1.1 KV grade XLPE insulated PVC sheathed armored Aluminum / Copper cable shall be 3 ½ /4 core of sizes as specified. The cable shall conform to IS:1554 Part I.
- 5.1.3 All control wires shall be 650V grade copper conductor Halogen free fire retardant or FRLS PVC insulated, conforming to IS:1554 Part I. The minimum size of the control wires shall be 1.5 sq. mm.

4.2 INSTALLATION:

Cable shall be laid in ground, trenches, cable trays and on walls as specified. Installation shall include all supports and clamps as required. The complete work shall be in accordance with CPWD General Specifications for Electrical works - Part II (External) 1994 amended upto date. As far as possible cables shall not be fixed on walls directly but laid on cable trays.

4.3 JOINTING FOR 33 KV GRADE CABLE GLANDS:

Jointing work shall be carried out only by licensed experienced cable jointer and shall be in accordance with CPWD General Specifications for Electrical works - Part II (External) 1994 amended upto date.

4.4 EARTHING FOR 33 KV GRADE CABLE GLANDS:

All HV cable glands shall be connected to the earth with 2 Nos. 38.6 mm copper or equivalent.

- 4.5 Selection shall be made as per tables given under table-V of CPWD General Specification for Electrical Works Part-II (External)- 1994 amended upto date.

4.6 TESTING:

Testing of the complete cable installation shall be as per clause 2.8.2 and 2.8.3 of CPWD General Specifications for Electrical works - Part II (External) 1994 amended upto date.

4.7 POWER DISTRIBUTION SYSTEM LOSSES:

The power cabling shall be adequately sized as to maintain the distribution losses not to exceed 1% of the total power usage. Record of design calculation for the losses shall be maintained.

The cables be designed as per the voltage drop regulations at peak load, and the losses be calculated based on the assessed load during the day, week and year and should not be limited to the peak load.

4.8 MATERIALS

The L.T. Power cables shall be XLPE insulated PVC sheathed type aluminium conductor armoured cable conforming to IS : 7098 : 1988 (Part-I) with upto date ammendments where as control cable shall be XLPE insulated and PVC sheathed copper conductor armoured/ unarmoured cable conforming to IS:7098 (Part-I) 1988.

4.8.1 INSTALLATION OF CABLES

Cables shall be laid directly in ground, pipes, masonry ducts, on cable tray, surface of wall/ceiling etc. as indicated on drawings and/or as per the direction of Engineer-In-Charge. Cable laying shall be carried out as per CPWD specifications.

4.8.2 INSPECTION

All cables shall be inspected at site and checked for any damage during transit.

4.8.3 JOINTS IN CABLES

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

The Contractor shall take care to see that the cables received at site are apportioned to various locations in such a manner as to ensure maximum utilisation and avoiding of cable joints. This apportioning shall be got approved from Engineer-In-Charge before the cables are cut to lengths.

4.8.4 LAYING CABLES IN GROUND

Cables shall be laid by skilled experienced workmen using adequate rollers to minimize stretching of the cables. The cable drums shall be placed on jacks before unwinding the cable. With great care it shall be unrolled on over wooden rollers placed in trenches at intervals not exceeding 2 metres. Cables shall be laid at depth of 0.75 metres below ground level. A cushion of sand total of 250mm shall be provided both above and below the cable, joint boxes and other accessories. Cable shall not be laid in the same trench or along side a water main.

The cable shall be laid in excavated trench over 80mm layer of sand cushion. The relative position of the cables, laid in the same trench shall preserved. At all changes in direction in horizontal and vertical planes, the cables shall be bent smooth with a radius of bent not less than 12 times the diameter of cables. Minimum 3 metre long loop shall be provided at both end of cable.

Distinguishing marks may be made on the cable ends for identifications of phases. Insulation tapes of appropriate voltage and in red, yellow and blue colours shall be wrapped just below the sockets for phase identifications.

4.8.5 PROTECTION OF CABLES

The cables shall be protected by bricks laid on the top layer of the sand for the full length of underground cable. Where more than one cables is laid in the same trench, the bricks shall cover all the cables and shall project a minimum of approximately 80mm on either side of the cables. Cable under road crossings and any other places subject to heavy traffic, shall be protected by running them through Hume Pipes of suitable size.

4.8.6 EXCAVATION & BACK FILL

All excavation and back fill required for the installation of the cables shall be carried out by the Contractor in accordance with the drawings and requirements laid down elsewhere. Trenches shall be dug true to line and grades. Back fill for trenches shall be filled in layer not exceeding 150mm. Each layer shall be properly rammed and consolidated before laying the next layer.

The Contractor shall restore all surface, roadways, side walks, kerbs wall or the works cut by excavation to their original condition to the satisfaction of the Engineer-In-Charge.

4.8.7 LAYING OF CABLES ON CABLE TRAY/SURFACE OF WALL/CEILING

Cable shall be laid on perforated M.S. Cable tray. Cables shall be properly dressed before cable ties/clamps are fixed. Wherever cable tray is not proposed, cables shall be fixed on surface of wall or ceiling slab by suitable MS clamps/ saddles. Care shall be taken to avoid crossing of cable.

4.8.8 CABLES ON HANGERS OR RACKS

The Contractor shall provide and install all iron hangers racks or racks with die cast cleats with all fixings, rag bolts or girder clamps or other specialist fixing as required. Where hangers or racks are to be fixed to wall sides, ceiling and other concrete structures, the Contractor shall be responsible for cutting away, fixing and grouting in rag bolts and making good.

The hangers or racks shall be designed to leave at least 25mm clearance between the cables and the face to which it is fixed. Multiple hangers shall have two or more fixing

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

holes. All cables shall be saddled at not more than 150mm centres. These shall be designed to keep provision of some spare capacity for future development.

4.8.9 CABLES TAGS

Cable tags shall be made out of 2mm thick aluminium sheets, each tag 1-1/2 inch in dia with one hole of 2.5mm dia, 6mm below the periphery. Cable designations are to be punched with letter/number punches and the tags are to be tied inside the panels beyond the glanding as well as below the glands at cable entries. Trays tags are to be tied at all bends. On straight lengths, tags shall be provided at every 5 metres.

4.8.10 TESTING OF CABLES

Prior to installation, burying of cables, following tests shall be carried out. Insulation test between phases, phase & neutral, phase & earth for each length of cable.

1. Before laying.
2. After laying.
3. After jointing.

On completion of cable laying work, the following tests shall be conducted in the presence of the Engineer-In- Charge.

- a. Insulation Resistance Test (Sectional and overall).
- b. Continuity Resistance Test.
- c. Earth Test.

All tests shall be carried out in accordance with relevant Indian Standard code of practice and Indian Electricity Rules. The Contractor shall provide necessary instruments, equipments and labour for conducting the above tests & shall bear all expenses of conducting such tests.

SECTION-5 **EARTHING SYSTEM**

5.1 SCOPE:

This section covers the general requirements of the earthing system for Sub-station installation. G.I. plate earthing with G.I. strip for sub-stations of 500 KVA capacity and copper plate earthing for sub-stations of higher capacity shall preferably be used.

5.2 ELECTRODES:

The earth electrodes shall be as per CPWD General Specifications for Electrical Works (Part I Internal) 2013.

5.3 LOCATION OF EARTH ELECTRODES:

Normally an earth electrode shall not be situated less than 1.5m from any building. Care shall be taken that the excavation of earth electrode may not affect the column footings or foundation of the building. In such cases electrodes may be farther away from the building.

The location of the electrode earth will be a place where the soil has reasonable chance of remaining moist. As far as possible, entrances, pavements, and roadways, are to be avoided for locating the earth electrode.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

5.4 WATERING ARRANGEMENT:

Method of watering arrangement shall comply with CPWD general specifications.

5.5 SIZE OF EARTH LEAD

The recommended sizes of copper earth bus lead in case of sub-stations shall be accordance with clause 8.2.2 of general specifications for electrical works (Part – I Internal) 2013 amended upto date. The minimum size of earth lead shall be 25 mm x 5 mm copper of equivalent GI strip.

5.6 INSTALLATION:

All joints shall be riveted and sweated. Joints in the earth bar shall be bolted and the joints faces tinned. Where the diameter of the bolt for connecting earth bar to apparatus exceeds one quarter of the width of the earth bar, the connection to the bolt shall be made with a wider piece of flange of copper jointed to earth bar. These shall be tinned at the point of connection to equipment and special care taken to ensure a permanent low resistance contact to iron or steel. All steel bolts, nuts, washers etc. shall be cadmium palated, main earth bars shall be spaced sufficiently on the surface to which they are fixed such as walls or the side trenches to allow

for ease of connections. Copper earthing shall not be fixed by ferrous fittings. The earthing shall suitably be protected from mechanical injury by galvanized pipe wherever it passes through wall and floor. The portion within ground shall be buried at least 60 cm deep. The earthing lead shall be securely bolted and soldered to plate or pipe. In the case of plate earthing the lead shall be connected by means of a cable socket with two bolts and nuts. All washers shall be of the same materials as the plate or pipe. All iron bolts nuts and washers shall be galvanized.

5.7 TESTING:

After installation, the tests as specified in CPWD General Specifications for Electrical work (Part I Internal) 2013 shall be carried out and results recorded.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

Maximum number of PVC insulated 650/1100 V grade aluminium/copper conductor cable conforming to IS : 694 – 1990, that can be drawn into rigid PVC/MS conduit

Nominal Cross-Sectional Area of conductor In Sq.mm	20mm		25mm		32mm		38mm		51mm		64mm	
	S	B	S	B	S	B	S	B	S	B	S	B
4	3	2	6	5	10	8	-	-	-	-	-	-
6	2	-	5	4	8	7	-	-	-	-	-	-
10	2	-	4	3	6	5	8	6	-	-	-	-
16	-	-	2	2	3	3	6	5	10	7	12	8
25	-	-	-	-	3	2	5	3	8	6	9	7
35	-	-	-	-	-	-	3	2	6	5	8	6
50	-	-	-	-	-	-	-	-	5	3	6	5
70	-	-	-	-	-	-	-	-	4	3	5	4

NOTE :

1. The above table shows the maximum capacity of conduits for a simultaneous drawing in of cables.
2. The columns headed 'S' apply to runs of conduits which have distance not exceeding 4.25m between draw in boxes and which do not deflect from the straight by an angle of more than 15 degrees. The columns headed 'B' apply to runs of conduit which deflect from the straight by an angle of more than 15 degrees.
3. Conduit sizes are the nominal external diameters.

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

SECTION-6 **LIST OF INDIAN STANDARDS**

I	ELECTRO –TECHNICAL VOCABULARY	
Sl No	Definition	IS Code
1	Fundamental definition	IS: 1885 (Part-I) 1961
2	Secondary cells and batteries (Superceding IS: 1147-1957)	IS: 1885 (Part-VIII) 1986
3	Electrical power system protection	IS: 1885 (Part-X) 1993
4	Electrical Measurement	IS: 1885 (Part-XI) 1966
5	Switchgear and control gear (First revision)	IS: 1885 (Part-XVII) 1979
6	Overhead transmission and distribution of electrical energy	IS: 1885 (Part-XXX) 1971
7	Electrical supply (Superseding IS : 1591-1960)	IS: 1885 (Part-XXXII) 1993
8	Transformers (First revision)	IS: 1885 (Part-XXXVIII) 1993
II	GRAPHICAL SYMBOLS USED IN ELECTRO TECHNOLOGY	
1	Guide for preparation of diagrams, charts & tables for electro technology. Definitions and classification (Superseding IS: 2032 (Part-I) 1962	IS: 8270 (Part-I) 1976
2	Item designation	IS: 8270 (Part-II) 1976
3	General requirements for diagrams	IS: 8270 (Part-III) 1977
4	Circuit diagrams	IS: 8270 (Part-IV) 1977
5	Inter connection diagrams and table	IS: 8270 (Part-V) 1976
III	CONDUCTOR AND POWER CABLES	
1	PVC insulated cable for working voltages up to and including 1100 volts (Second revision) (Superseding IS: 3035 Part I 1965)	IS: 694/1990
2	PVC insulate (Heavy duty) working dielectric cables for voltage up to & i/c. 1100 volts (Second revision)	IS:1554 (Part-I)/ 1988
3	For working voltage from 3.3 KV up to and including 11KV	IS: 1554 (Part II)/1988
4	Recommended current ratings for cables	IS:3961 (Part I) 1967
5	Paper insulated lead sheathed cables PVC insulated and PVC sheathed heavy	IS: 3961 (Part II) 1967
6	Application guide for nonlinear resistor type Surge arrester for alternating current system (First revision)	IS: 15086 (Part-5)
7	Recommended short circuit ratings of high voltage PVC cable	IS: 5819-1970
8	Conductors for insulated electric cables and flexible cords.	IS: 8130/1984
9	Busbar trunking system (Air insulated & sand witch insulated type)	IS: 8623 Part I & II/ 1993, IEC 60439-Part I & II

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

IV	ELECTRICAL INSTALLATION CODE OF PRACTICES	
1	Installation and maintenance of transformers	IS: 10028 (Part-II & III)
2	Insulation oil in service, maintenance, and supervision code of practice for	IS: 1866/2000
3	Guide for short circuit calculations	IS: 13234
4	Electrical wiring installation (system voltage not exceeding 650 volts)	IS: 732/1989
5	Paper insulated power cables (Upto and including 33KV (first revision))	IS: 1255/1983
6	Earthing	IS : 3043/1987
V	SWITHC GEAR AND CONTROL GEAR	
1	Degree of protection provided by (enclosure for low voltage switchgear and control gear)	IS: 13947 (Part-I)
2	HRC cartridge fuse links upto 650 volts	IS: 9224 (Part-II)
3	Circuit breaker AC requirements & tests IS:13947 (Part -II) for voltages not exceeding 1000 Volts a.c or 1200 volts d.c.	IS:13947 (Part -II)
4	General and definition. Section 2- IS: 13118-1991 Voltages above 1000 volt a.c.	IS: 13118-1991
5	Type tests & Routine test for voltage IS: 13118-1991 above 1000 Volt a.c.	IS: 13118-1991
6	Heavy duty air break switches and composite units of air break switches & fuses for voltages not exceeding 1000 volts.	IS: 4064
7	General requirements for switch gear, control gear for voltage not exceeding 1000 volts	IS: 13947 (Part-I)
8	Factory built assemblies of switch gear and control gear for voltages upto & including 1000 V AC or 1200 V DC	IS 8623:1993
9	Requirements for bus bar trunking system (Bus ways)	IS: 8623 (Part II)/1993
10	High Voltage alternating current circuit breaker	IS: 13118-1991, IEC : 60056
11	High Voltage Switches –Part I : Switches for Rated Voltages Above 1 Kv and Less Than 52Kv	IS: 9920-2002
12	A.C Metal Enclosed Switchgear and Control gear for Rated Voltages Above 1 Kv and UP to and Including 52 Kv	IS : 3427-1997
13	Electrical Measuring Instruments and their Accessories	IS: 1248
VI	TRANSFORMERS AND REACTORS	
1	Oil type power transformer	IS: 11171-1985
2	Power transformer General	IS:2026 (Part-I) -1977
3	Power transformer Temperature rise	IS: 2026 (Part-II)-1977
4	Power transformer Insulation level and di-electric tests	IS: 2026 (Part-III)/1981
5	Distribution transformers	IS: 1180/1989
6	Gas operated relays	IS: 3637/1966
7	Power transformers fittings and accessories	IS: 3639/1966
8	Guide for loading of oil immersed transformers	IS: 6600/1972

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

9	Current transformers Part I to III	IS: 2705/1992
10	Voltage transformers Part I to III	IS: 3156/1992
11	Outdoor type three- phase distribution transformers	IS: 2099/1986

VII	CHEMICALS:	
1	Colours for ready mixed paints and enamels	IS: 5/1994 (Third revision)
2	Ready mixed paint brushing zinc chrome priming (IInd revision)	IS: 104/1979
3	Enamel, synthetic exterior (a) under coating (b) finishing (Ist revision)	IS: 2932/2003
VIII	INSULATING LIQUIDS	
1	Specific resistance (resistivity) or electrical insulating liquids, methods of tests for	IS: 6103/1971
2	Electric strength of insulating oils, methods for determination of	IS: 6792/1992
3	New insulation oils for transformers and switchgears (2nd revision)	IS: 335/1993
IX	SAFETY EQUIPMENTS	
1	CO2 based Fire Extinguisher	IS: 2878/1976
2	Chemical based Fire Extinguishers	IS: 2171/1976
3	HCFC Blend- A Extinguishing System	IS: 15505-2004
4	Insulating Mats	IS: 15625-2006

CHAKAKYA NATIONAL LAW UNIVERSITY

Nyaya Nagar, Mithapur, Patna, Website: <http://cnlu.ac.in>

NIT No-33/2024-25

Dated: 23/09/2024

L I S T O F A P P R O V E D M A K E S S E C T I O N - 8		
1.	33KV HT PANEL WITH VCB	OEM Design verified HV Panel Manufactured by OEM Authorized License Partner as per IEC 61439-1&2 and Inspection at OEM Authorized License Partner's premises. (SIEMENS / SCHNIDER / ABB)
2.	LT PANELS	Manufacturer meeting the specifications defined with BOQ
3.	AIR CIRCUIT BREAKERS	SCHNEIDER/ SIEMENS/ L&T
4.	MCCB/MCB	SCHNEIDER/ SIEMENS/ L&T
5.	DISTRIBUTION BOARD	SCHNEIDER SIEMENS/ L&T
6.	SWITCH & SOCKET	NORYSIS/ NORTHWEST/ LEGRAND
7.	AMMETER, VOLTMETER	AE/ MECO/ UNIVERSAL/ RISHAB/ CONZERVE
8.	KWH, PF, FREQUENCY METER	AE/ MECO/ UNIVERSAL/ RISHAB/ CONZERVE
9.	DIGITAL METERS / INTELLIGENT MULTIFUNCTIONAL DIGITAL METER	CONSERVE / HPL / L&T / RISHAB/SECCURE/ SIEMENS. (The approved OEM of HT/LT Panel manufacturers shall be permitted)
10.	SELECTOR SWITCH, PUSH, BUTTON SWITCH / EMERGENCY SWITCH	KAY CEE / CONTROL & SWITCH GEARS / L&T/ SCHENIDER / TEKNIC / SIEMENS (The approved OEM of LT/HT Panel manufacturers shall be permitted).
11.	LED INDICATION LAMPS	KAY CEE / CONTROL & SWITCH GEARS / SCHENIDER / TEKNIC/ SIEMENS. (The approved OEM of HT/LT Panel manufacturers shall be permitted).
12.	CT AND PT	AE / KAPPA / UNIVERSAL / KAYCEE / IMP/ C & S/MECO/KAPCO/CROMPTON GREAVES (The approved OEM of HT / LT Panel manufacturers shall be permitted).
13.	PROTECTIVE RELAYS/CONTACTORS	EASUN REYROLLE / ABB / SIEMENS/C&S
14.	LIGHTNING ARRESTOR	LAMCO / ATLAS / OBLUM
15.	TIME SWITCH	LEGRAND/ ABB/ L&T
16.	PVC CONDUIT AND ACCESSORIES	MALHOTRA/ AKG/ BARELLIA
17.	CAPACITOR PANEL	Manufacturer meeting the specifications defined with BOQ
18.	PORTABLE FIRE EXTINGUISHER	INTIME/ LIFE GUARD/ ECO FIRE/ SAFEX
19.	CABLE TRAY	OBO/ LEGRAND/ SCHNEIDER/ ABB
20.	HT/LT CABLES AND WIRES	FINOLEX/ RR KABEL/ POLYCAB/ HAVELLS