ALL INDIA INSTITUTE OF MEDICAL SCIENCES PATNA

(An Autonomous body under MoH&FW, Govt. of India)

TENDER ENQUIRY DOCUMENT

(Operation and CAMC of substation no - 3, 4 & residential complex at AIIMS Patna.)

Advertised Tender Enquiry No. : AIIMS/Pat/SE/69/E598

Brief Descriptionof Goods : **Operation and all-inclusive comprehensive annual maintenance contract for substation (33 KV, 11 KV), DG Sets with main LT panels cum AMF panels, 33 KV VCB, 11 KV VCB, ACB, rising mains, & all other electrical installations LT panel cum AMF panel etc.**

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ALL INDIA INSTITUTE OF MEDICAL SCIENCES

PATNA - 801507

(An Autonomous body under MoH&FW, Govt. of India)

Procurement Cell, Phulwarisharif, Patna-801507, Bihar.

No. AIIMS/Pat/SE/69/E598 **Dated- ……./03/2023**

Instructions for Online Bid Submission

The Director, AIIMS Patna, invites E-Bids in Two Bid System (i.e. Technical and Financial Bid) from eligible Manufacturers / Direct Importers online through E-procurement solution portal of https://eprocure.gov.in/eprocure/app on mutually agreed terms and conditions and satisfactory performance for the **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna** and supply of items as per the Specifications.

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

1.0 REGISTRATION

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

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

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

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

1.5 Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.

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

2.0 SEARCHING FOR TENDER DOCUMENTS

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

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

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

3.0 PREPARATION OF BIDS

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

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

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

4.0 CORRIGENDUM

4.1 Corrigendum in technical specification issued after pre-bid meeting will be final & no corrigendum will be issued thereafter.

4.2 Corrigendum will be notified through https://eprocure.gov.in/eprocure/app and website of AIIMS Patna.

5.0 SUBMISSION OF BIDS:

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

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

5.3 Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.

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

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

5.6 All the documents being submitted by the bidders will be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology.

5.7 Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys.

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

5.9 Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

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

6.0 ASSISTANCE TO BIDDERS

6.1 Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

6.2 Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be call directed to the 24x7 CPP Portal Helpdesk.

7. Guideline for submission of bid :

A. Technical Bid:

The following documents are to be uploaded using DSC by the bidder along with Technical Bid as per the tender document:

(i) Signed and scanned copy of proof for payment of Tender fee & Earnest Money Deposit (EMD).

(ii) Signed and scanned copy of PAN.

(iii) Signed and scanned copy of GST registration certificate, with up to date clearance certificate, **valid electrical license.**

(iv) Signed and scanned copy of Letter of Transmittal as per format attached in tender document

(v) Signed and scanned copy of structure organization of bidder as per "form A"

(vi) Signed and scanned copy of Certificate for sole ownership / partnership/ Certificate of Incorporation.

(vii) Signed and scanned copy of Statements of turnover per year for last three successive years duly certified by the Chartered Accountants duly indicating U D I N. (Minimum Annual Turnover must be at least 50% of the estimated cost As per "form B" (with supporting documents).

(viii) Signed and Scanned copy of Tender Acceptance letter "Annexure-I"

(ix) Signed and Scanned copy of Banker's Certificate, issued by a Scheduled Bank on or after 31.03.2022 (Solvency Certificate) as per " Form C" of Rs 37.5 Lakh

(x) Signed and scanned copy of proof of Status of Bidder: Bidder should have registration with Govt. / Semi Govt. organization like railways, CPWD, BRO, MES, State PWD whose jurisdiction defined to work in Bihar state in appropriate class are eligible to participate in tender and having experience in similar work.

(xi) Signed and scanned copy of satisfactorily completed the similar works during the last five (5) years prior to the last stipulated date for submission of the bid as per "Form D" (with supporting documents)

(xii) Signed and scanned copy of registered Power of Attorney as per "Annexure – II" in favour of person.

(xiii) Signed and scanned copy of performance certificate of the same executed work issued by an officer not below the rank of Executive Engineer or equivalent.

(xiv) Signed and Scanned Copy of affidavit duly certified by the notary at the location of the Agencies/Headquarters that the bidder has never been black listed or punished by any court for any criminal offence/breach of contract and that no police/vigilance enquiry/criminal case is pending against either bidder legal entity or against individual Directors of the company or partners etc. of the firm etc.

(xv) Signed and scanned copy of Audit report of the last five years ending 31st March 2022 duly certified by the Chartered Accountant duly indicating U D I N, company should be financially sound and have suffered no loss till 31/03/2022.

(xvi) Signed and Scanned Copy of Integrity Pact as per Format attached in tender documents.

(xvii) Signed and Scanned Copy of Technical & Administrative Personnel as per "Form G"

Note-

- Applications from Joint ventures or consortium of companies will not be accepted or considered for participation

- Bidders are requested to upload the clearly visible documents only other wise if not clearly visible than offer shall be liable for rejection without any further communication.

B. Price Bid / Financial Bid :

Schedule of price bid in the form of BOQ_XXXX .xls

a. The Financial Proposal/Commercial bid format is provided as BOQ_XXXX.xls along with this tender document at https://eprocure.gov.in/eprocure/app. Bidders are advised to download this BOQ_XXXX.xls as it is and quote their offer/rates in the permitted column and upload the same in the commercial bid. Bidder shall not tamper/modify downloaded price bid template in any manner. In case if the same is found to be tampered / modified in any manner, tender will be completely rejected and EMD would be forfeited and tenderer is liable to be banned from doing business with AIIMS Patna.

AIIMS/Pat/SE/69/E598 **Section 1**:

INFORMATION & INSTRUCTIONS TO BIDDERS

Item rate tender is invited on behalf of Director All India Institute of Medical Sciences Patna form experienced, Specialized Firms and Eligible contractor of reputed in single stage two bid systems for **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna**

NIT No.	Name of work & Location	Estimated Cost put to Tender	Earnest Money	Period of CAMC	Last date & time of submission of Eligibility Documents & Financial bids	Period during which EMD and Eligibility documents shall be submitted Online	Time and date Time and date of opening of eligibility documents
AIIMS/Pat/SE/69/E598	**Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna**	**Rs. 93,39,465/-**	Rs. 1,86,790/-	**1 Year** (may be extendable up to next 2 year on satisfactorily completion of first year).	Up to 15:00 Hrs on …..09.2022	From ….09.2022 10:00 Hrs to ….09.2022 15:00 Hrs	On ….09.2022 At 15.00 Hrs

 # After successful completion of one year of CAMC, Contract period may be extended for one year based on satisfactorily performance of vendor during contract period or requirement of Aiims with 5% increment on basic tendered value (up to next 2 Years).

The work shall be executed as per DSR 2018 Rates (Civil, Electrical & Mechanical) and non-schedule items rate shall be derived from existing market rate and the decision of Director shall be final and binding. GST, turnover tax, income tax, Labour Cess, etc. as applicable shall be paid by the Contractor himself and the AIIMS will not entertain any claim whatsoever in this respect. The bidder shall quote his rates considering all such Taxes. The AIIMS shall deduct from the running bills and final bill, the TDS, & Labour Cess as applicable. However in respect of GST, same shall be paid by the Contractor to the concerned department and on demand it will be reimbursed to him by the AIIMS after satisfying that it has been actually and genuinely paid by the contractor.

It will be obligatory on part of the Bidder to tender for all the component parts. The Institute reserves right to accept tender in full or in part. The Institute does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without assigning any reason. All bids in which any of the prescribed conditions is not fulfilled or any condition including that of conditional rebate is put forth by the Bidders shall be summarily rejected.

The tenderers are advised to visit the site before attending the Pre-bid conference, if any, for greater clarity on the existing building structures and space available for execution of the work.

The Institute Campus is targeted for 3/4 Star from GRIHA / LEED rating. In order to secure this rating, a high degree of responsibility and cooperation is necessary from the contractor. All materials and systems used in the project are intended to maximize energy efficiency for operation of Project throughout service life (substantial completion to ultimate disposition – reuse, recycling, or demolition) with an emphasis on top quality. Materials and systems are to maximize environmentally-benign construction techniques, including construction waste recycle, reusable delivery packaging, and reusable of selected materials. All vendors / contractors must adhere to best practices related to Green Buildings, and rates quoted take this into account. Nothing extra on this account shall be payable.

It is mandatory to sign the Integrity Pact by the Bidder failing which the Tenderer will stand disqualified from the tendering process and such Application would be summarily rejected.

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

Should have had a minimum average annual financial turnover Minimum Annual Turnover must be at least 50% of the estimated cost on similar works during the last three consecutive balance- sheets duly audited by a Chartered Accountant and.

Should not have incurred any loss in more than two years during the last five years ending 31st March 2022 for which balance sheets, duly certified by the Chartered Accountant, are available.

Should have a minimum solvency **of Rs 37.5 Lakh certified by his bankers. The certificate should have been issued within 6 month form original last date of submission of tender**.

The tender document consisting of plans, specifications, schedule of quantities of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be obtained from the office of SE/**All India Institute of Medical Sciences, Patna.** During the office hours on all working days except on, Sunday & Public holidays and also can be downloaded free of cost from websitehttps://www.AIIMS Patna.org. /https://eprocure.gov.in/cppp/

Bidders are advised to keep visiting the above mentioned web-sites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the Bidder of his liabilities to submit the tender complete in all respect including updates thereof, if any.

In case the lowest tendered amount (worked out on the basis of quoted rate of individual items) of two or more Bidders is the same, then such lowest Bidders may be asked to submit sealed revised offer quoting rate of each item of schedule of quantity for all sub sections/ sub heads as the case may be, but the revised quotes rate of each item of schedule of quantity for all sub sections / sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.

If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more Bidders received in revised offer is again found to be equal, then the lowest tender among such Bidders shall be decided by a draw of lots in the presence of lowest Bidders who have quoted equal amount of their tenders.

In case any of such lowest Bidders in his revised offer quotes rate of any item more than their respective original rate quoted already at the time of submission of tender, then such revised offer shall be treated as invalid. Such case of revised offer of the lowest firm/contractor or case of refusal to submit revised offer by the lowest Bidder shall be treated as withdrawal of his tender before acceptance and 50% of his earnest money shall be forfeited.

In case all the lowest Bidders those who have tendered amount (as a result of their quoted rates of individual items), refuses to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest Bidder.

The tender for the works shall remain open for acceptance for a period of one hundred twenty (120) days from the date of opening of Eligibility Documents. In case the Tenderer 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 Institute, then the Institute shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the Tenderer shall not be allowed to participate in the re-tendering process of the work.

Bidder, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate (s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the re-tendering process of the work.

The tender inviting Authority shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.

The Successful Tenderer shall be required to submit a Performance Guarantee of 3% (Three Percent) of the agreement amount within 15 days of issue of letter of intent. This guarantee shall be in the form of Fixed Deposit Receipts or Bank Guarantee from any Scheduled Bank or the State Bank of India in accordance with the prescribed form. This period can be further extended by Engineer-in-Charge/Institute up to a maximum period of 7 days on the written request of the contractor, **however late fee will be charged @ 0.1% per day.**

The Tenderer whose tender is accepted (Successful Tenderer/Bidder or Contractor) will also be required to furnish by way of Security Deposit for the fulfilment of his contract, an amount equal to 3.0% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills of the Contractor at the rates mentioned above and the earnest money deposited at the time of tenders, will be treated as a part of the Security Deposit.

The Security amount will also be accepted as Fixed Deposit Receipt or Bank Guarantee of a Scheduled Bank or State Bank of India provided confirmatory advice is enclosed.

On acceptance of the tender, the name of the accredited representative(s) of the selected Contractor who would be responsible for taking instructions from the SE, AIIMS PATNA shall be communicated in writing to the AIIMS PATNA. The selected Contractor shall give a list of Institute employees related to him.

The Selected Contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Accepting Authority may in his discretion, without prejudice to any other right or remedy available in law, cancel the Contract. The Selected Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

Agreement shall be drawn with the successful bidder as per the format forming part of the Tender Documents. This Notice Inviting Tender shall form a part of the contract document. The successful bidder / tenderer, on acceptance of his bid by the Accepting Authority shall within 15 days from the letter of acceptance, sign the agreement consisting of:

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

SECTION II - INFORMATION & GENERAL INSTRUCTIONS TO BIDDERS

1. General

1.1 Information and Instruction for Contractors for tendering forming part of NIT and to be posted on website.

1.2 Information and instruction for Contractor will form part of NIT.

1.3 Late offers will not be accepted.

1.4 The bidders are requested to visit site and get familiarized with local condition before submission of tenders.

1.5 Right to issue and to accept or reject any or all tenders without assigning any reason thereof is reserved by the Competent Authority i.e. Director AIIMS Patna.

1.6 The bidder should be registered contracting firms under companies Act 1956, if applicable.

1.7 Bidders/contracting firms should have completed only in their own name & style, similar work.

1.8 All scaffolding shall be arrange by the agency/bidder itself. The bidders should quote their rates keeping in mind that scaffolding, ladder & staging shall be arranged by the bidder itself.

1.9 The bidder will take all the precaution not to damage any part of the building. Anyhow if damage is done, the same shall be restored to its original shape & size by the executing agency.

1.10 **Quoted rates deemed to be inclusive of all taxes including GST**.

1.11 The tenderer /bidder should also quote rate for annual maintenance (comprehensive) in sub-head II.

1.12 L1 shall be decided on composite basis .

1.13 Letter of transmittal and forms for qualification are given in Section III.

1.14 All information called for in the enclosed forms should be furnished against the relevant columns in the forms. If for any reason, information is furnished on a separate sheet,

Reference to the same should be mentioned against the relevant column. Even if no information is to be provided in a column, a 'Nil' or 'No such case' entry should be made in that column. If any particulars/query is not applicable in case of the Bidder, it should be stated as 'not applicable'. The Bidders are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information may result in the Bidder being summarily disqualified. Submissions made by telegram, fax, email or telex and those received late will not be entertained.

1.15 The Application should be type written/downloaded.

1.16 The Application along with required documents should be uploaded in Original and each page should be serially numbered. All the pages should be duly signed in ink on each page & official seal stamped and should be uploaded online super scribing with "Tender documents for **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna**

Documents submitted in connection with this tender will be treated confidential and will not be returned.

1.17 Overwriting should be avoided. Correction, if any, shall be made by neatly crossing out, initialling, dating and rewriting.

1.18 References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the Bidder should be signed by an officer not below the rank of Executive Engineer or equivalent.

1.19 The Bidder is advised to attach any additional information which he thinks is necessary in regard to his capabilities to establish that the Bidder is capable to successfully complete the envisaged work. He is, however, advised not to furnish superfluous information. No information shall be entertained after submission of Tender Application, unless it is called for by the Institute.

1.20 The credentials submitted in respect of Tender Application shall be verified before award of work. Any information furnished by the Bidder found to be incorrect either immediately or at a later date, would render him liable to be debarred from any work awarded and from tendering/taking up of any other work in the Institute. If such Bidder happens to been enlisted contractor of any Govt. organization, his name shall also be recommended for removal from the approved list of contractors.

1.21 All NSIC /SSI/ MSME registered bidders/vendors are exempted from submission of EMD fee. Valid NSIC/SSI /MSME certificate must be submitted online to avail the exemption from furnishing the EMD.

2.0 Definitions

In this document the following words and expressions have the meaning hereby assigned to them.

2.1 **Institute**: means AIIMS PATNA, acting through Director, AIIMS PATNA

2.2 **Bidder**: means a legal entity in the form of a proprietary firm, firm in partnership, limited company (private or public) or corporation acting through its authorized signatory. Wherever the generic expression 'he' is used to refer to a Bidder, it will refer to any bidder irrespective of gender.

2.3 "**Year**" means "Financial Year" unless stated otherwise.

3.0 Method of Application:

3.1 If the Bidder is a Proprietary Firm, the application shall be signed by the proprietor, with his full typewritten name, and full name of his Firm with its current address.

3.2 If the Bidder is a Firm in partnership, the application shall be signed by all the partners of the firm with their full type written names and current addresses, or, alternatively, by a partner holding power of attorney for the firm. In the latter case a certified copy of the power of attorney shall accompany the Application. A certified copy of the partnership deed and current address of all partners of the firm shall also accompany the Application.

3.3 If the Bidder is a Limited Company or a Corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application. In such a case, a certified copy of the power of attorney shall accompany the application. The Bidder should also furnish a copy of the Certificate of Incorporation,

3.4 In case of foreign entities, only entities having registered establishment in India for carrying out its operations for at least last 7 years and meeting all other eligibility criteria, as mentioned in this document, may also apply.

4.0 Final decision making authority:

The Institute reserves the right to accept or reject any Tender and to annul the process and reject all tenders at any time, without assigning any reason or incurring any liability to the Bidders unless such action is warranted by actions of any bidder(s).

5.0 Particulars provisional:

The particulars of the work given in Tender Documents are provisional. They are liable to change and must be considered only as information to assist the Bidder to tender for proposed work.

6.0 Site visit:

The site for the work is available. The Bidders are advised to visit the site of work and its surrounding and obtain for himself on his own responsibility, all information that may be necessary for preparing the Tender. The cost of visiting the site shall be at the Bidder's own expense.

7.0 Minimum Eligibility Criteria

7.1 The interested bidder should meet the following minimum qualifying criteria.

a) Bidder should have registration with Govt. / Semi Govt. organization like railways, CPWD, BRO, MES, State PWD whose jurisdiction defined to work in Bihar state in appropriate class are eligible to participate in tender and having experience in similar work.

b) The bidder should have satisfactorily completed the works as mentioned below during the last five (5) years prior to the last stipulated date for submission of the bid.

i. At least three similar or completed works each of value not less than 40% of the estimated cost put to tender.

OR

ii. At least two similar completed works each of values not less than 60% of the estimated cost put to tender.

OR

iii At least one similar completed works of values not less than 80% of the estimated cost put to tender.

c) At least one similar work should have been completed in Ministers/ Department/ Autonomous/ Bodies/ public Sector Undertaking under Government of India or state Govt of Bihar.

A Similar work shall mean, works, completed in India, of:

Operation and all-inclusive comprehensive annual maintenance contract for substation (33 KV, 11 KV), DG Sets with main LT panels cum AMF panels, 33 KV VCB, 11 KV VCB, ACB, rising mains, & all other electrical installations LT panel cum AMF panel etc.

7.2 Components of works executed other than those include in definition of similar work shall be deducted while calculating cost of similar work. Bidder shall submit abstract of cost of work in support of this. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of Applications.

7.3 The Bidder must submit an undertaking that the bidder is not in default of payment of Statutory dues (other than disputed dues being contested by the Bidder) and that up to date tax returns have been filed along with the payment of due taxes, and submit copies of such returns submitted to the IT Department/Department of Trade and Taxes.

7.4 The Bidder should not have incurred any loss in the more than two years during the last five years ending 31st March 2022 for which balance sheets, duly certified by the Chartered Accountant, are available.

7.5 The Bidder should have a minimum solvency of Rs. 37.5 Lakh certified by his Bankers after date of issue of these Tender documents.

7.6 Bidder should not have been blacklisted by any State/Central Government Department/Autonomous Bodies or PSU. The bidder must submit a duly notarized affidavit to this effect.

7.7 The Bidder should own machinery & equipment required for the proper and timely execution of the work.

7.8 The Bidder should have on his pay roll sufficient number of Technical and Administrative employees for the proper execution of the contract. The Bidder should
Submit a list of these employees clearly stating how they would be involved in this work.

7.9 The bidder shall submit the supporting documents such as:
List of full-time technical staff (clearly mentioning regular/contract staff) proposed to be deployed for the work with name, qualification and experience, each along with complete CV, not exceeding 2 pages.

Attested copies of Degree/Diploma and experience certificate.

7.10 The Bidder's performance for each work completed in the last Five years and in hand should be certified by an officer not below the rank of Executive Engineer or equivalent.

7.11 The Bidder needs to make disclosure of any liquidated damages or penalties imposed on it by the clients towards delay in completion of project or for not meeting the contractual specifications, including issues relating to defects, workmanship and warranty obligations.

7.12 The Bidder will be required to give an undertaking that it would comply with all statutory laws and compliances, including those applicable to the sub-contractors appointed by him and indemnify the Institute of all implications and consequences resulting from any non-compliances due to any reasons whatsoever,

8.0 Evaluation Criteria for Qualification:

8.1 For the purpose of qualification, the details submitted by the Bidders will be evaluated in the following manner:

8.1.1 The criteria prescribed in para 7.1 to 7.12 above in respect of experience of similar class of works completed, solvency and financial turn over etc. will first be scrutinized and the Bidder's eligibility for the work to be determined.

8.1.2 The Bidders qualifying the criteria as set out in para 7.1 to 7.12 above will be shortlisted for opening of Financial Bids.

The Institute, however, reserves the right to modify the criteria or to restrict the list of such qualified Bidders to any number deemed suitable by it.

The Institute also reserves the right to appoint a committee or any consultants to complete any part of the selection process.

8.2 Even if a Bidder satisfies the above requirements, he may be liable to disqualification if he has:

(a) Made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document.

(b) Record of poor performance such as abandoning work, not properly completing the contract, or financial failures/weaknesses etc.

(c) If confidential inquiry reveals facts contrary to the information provided by the Bidder.

(d) If confidential inquiry reveals unsatisfactory performance in any of the selection criteria

(e) If inspection of works in progress or completed by the Bidder are not found satisfactory by the Institute.

9.0 <u>Financial Information:</u>

Bidder should furnish the following financial information:

Annual financial statement for the last five (5) years in (Form 'B'). This should be supported by audited balance sheets and profit and loss accounts duly certified by the statutory auditor and copies of Income Tax Return filed with Income Tax Department.

Solvency certificate issued by a Scheduled Bank after date of issue of these Tender documents, in (Form 'C') Name and address of the bankers, identification of individuals familiar with the Bidder's financial standing and a banker's statement on availability of credit.

10.0 Experience in works highlighting experience in similar works:

10.1 Bidder should furnish the following:
List of all works of similar nature successfully completed during the last seven years in (Form 'D').
List of the projects under execution or awarded in (Form 'E').

10.2 Particulars of completed works and performance of the Bidder duly authenticated/certified by an officer not below the rank of Executive Engineer or equivalent should be furnished separately for each work completed or in progress. (Form 'F').

11.0 Organization Information:

Bidder is required to submit the information in respect of his organization in Form 'A' 'G'.

12.0 Letter of Transmittal:

The Bidder should submit the letter of transmittal attached with the document.

13.0 Financial Bids:

After evaluation of Eligibility Documents, a list of the qualified Bidders will be prepared. Financial Bids of the qualified Bidders will be opened on a later date. Date for Financial Bid's opening will be informed separately to the qualified Bidders.

14.0 Miscellaneous:

14.1 The Institute reserves the right, without being liable for any damages or obligation to inform the Bidders, to:

(a) Reject any or all the Tenders without assigning any reason.

14.2 Any effort on the part of the Bidder or his agent to influence or pressurize the Institute would result in rejection of his Tender. Canvassing of any kind is prohibited.

14.3 Work shall be executed according to General Conditions of Contract forming part of the Tender Documents. The Institute reserves the right to modify any of the conditions, to its specific requirements.

14.4 The Bidding process shall be governed by, and construed in accordance with, the laws of India and the Courts at PATNA shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Bidding process.

14.5 The Institute, in its sole discretion and without incurring any obligations or liability, reserves the right, at any time, to; Suspend and/or cancel the Tender process and/or amend and/or supplement the Tender process or modify the dates or other terms and conditions relating thereto;

Consult any Bidder in order to receive clarification or further information;

Qualify or not to qualify any Bidder and/or to consult any Bidder in order to receive clarification or further information;

Retain any information and/or evidence submitted to the Institute by, on behalf of, and/or in relation to any Bidder; and/or

Independently verify, disqualify, reject and/or accept any and all submissions or other information and/or evidence submitted by or on behalf of any Bidder;

Call for information from previous clients and evaluate the previous completed Projects regarding all submissions including litigations;

Undertake physical verification of completed projects and interact with clients;

Call for information from taxation authority or by financial auditor, banker, and chartered accountant Engaged by the Bidder.

14.6 It shall be deemed that by submitting the Tender, the Bidder agrees and releases the authority, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder and the Tender Documents, pursuant here to, and/or in connection with the Tender process, to the fullest extent permitted by applicable law, and raise any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or in future.

Section-IV
FORMS FOR QUALIFICATION

LETTER OF TRANSMITTAL

From:

(Full Address of Bidder)

To,

Director

All India Institute of medical sciences Phulwarisharif, Patna

Subject: **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna.**

Sir,

Having examined the details given in Notice Inviting Tender for the above work, I/We hereby submit the requisite documents and other relevant information.

I/We hereby certify that all the statements made and information supplied in the enclosed Forms 'A' to 'G' and accompanying statements are true and correct.

I/We have furnished all information and details necessary for selection of Contractor and have no further pertinent information to supply.

I/We submit the requisite certified solvency certificate and authorize the Director, AIIMSPATNA to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorize the Institute to approach individuals, employers, firms and corporations to verify our competence and general reputation.

I/We have not been blacklisted by any State/Central Government Department or PSU or Autonomous Bodies. I/We have submitted a duly notarized affidavit to this effect.

I/We undertake that I/we would comply with all statutory laws and compliances, including those applicable to the sub-contractors appointed by us and indemnify the Institute of all implications and consequences resulting from any non-compliances due to any reasons whatsoever.

I/We submit the certificates as per the Form 'D' in support of our suitability, technical knowledge and capability for having successfully completed the following works:

S. No.	Name of work	Amount	Contact particulars of certificate issuing authority
1.			
2.			
3.			

The Bidder shall furnish all contract information such as postal address, telephone and fax numbers, e-mail ids etc. Incomplete information will make the Application liable for rejection.

Following documents are submitted herewith

Document Checklist
Form 'A' – Structure & Organization of Bidder (with supporting documents)
Form 'B' – Financial Information (with supporting documents)
Form 'C' – Banker's Certificate
Form 'D' – Details of similar works completed (with supporting documents)
Form 'E' – Details of similar works in hand (with supporting documents)
Form 'F' - Performance reports of works
Form 'G' – Details of Technical & Administrative Personnel
Affidavit
Pledge of Compliance
Integrity Pact and Integrity Agreement
Demand Draft, Bank Guarantee from a Scheduled Bank towards Earnest Money Deposit.
Tender Acceptance letter
Demand Draft from a Scheduled Bank, ~~towards Tender Document Fee~~
Upload soft copy of the Tender document, duly signed on each page by authorized signatory.

Seal of Bidder:
Date of Submission: Signature of Bidder

CHECK LIST FOR TERMS AND CONDITIONS

A. Checklist of documents to be submitted online:

S. No.	Terms & Conditions as per bidding document	Yes/ No
1	Signed and scanned copy of proof for payment of Tender fee & Earnest Money Deposit (EMD).	
2	Signed and scanned copy of PAN	
3	Signed and scanned copy of GST registration certificate, with up to date clearance certificate, valid electrical license.	
4	Signed and scanned copy of Letter of Transmittal as per format attached in tender document	
5	Signed and scanned copy of structure organization of bidder as per "form A"	
6	Signed and scanned copy of Certificate for sole ownership / partnership/ Certificate of Incorporation.	
7	Signed and scanned copy of Statements of turnover per year for last three successive years duly certified by the Chartered Accountants duly indicating U D I N. (Minimum Annual Turnover must be at least 50% of the estimated cost As per "form B" (with supporting documents).	
8	Signed and Scanned copy of Tender Acceptance letter "Annexure-I"	
9	Signed and Scanned copy of Banker's Certificate, issued by a Scheduled Bank on or after 31.03.2022 (Solvency Certificate) as per " Form C" for 37.5 Lakh	
10	Signed and scanned copy of proof of Status of Bidder: Bidder should have registration with Govt. / Semi Govt. organization like railways, CPWD, BRO, MES, State PWD whose jurisdiction defined to work in Bihar state in appropriate class are eligible to participate in tender and having experience in similar work.	
11	Signed and scanned copy of satisfactorily completed the similar works during the last five (5) years prior to the last stipulated date for submission of the bid as per "Form D" (with supporting documents)	
12	Signed and scanned copy of registered Power of Attorney as per "Annexure – II" in favour of person.	
13	Signed and scanned copy of performance certificate of the same executed work issued by an officer not below the rank of Executive Engineer or equivalent.	
14	Signed and Scanned Copy of affidavit duly certified by the notary at the location of the Agencies/Headquarters that the bidder has never been black listed or punished by any court for any criminal offence/breach of contract and that no police/vigilance enquiry/criminal case is pending against either bidder legal entity or against individual Directors of the company or partners etc. of the firm etc.	
		Page no-19

15	Signed and scanned copy of Audit report of the last five years ending 31st March 2022 duly certified by the Chartered Accountant, are available. And should not have incurred any loss in more than two years during the last five years ending 31st March 2022 for which balance sheets, duly certified by the Chartered Accountant, are available.	
16	Signed and Scanned Copy of **Integrity Pact as per Format attached in tender documents.**	
17	Signed and Scanned Copy of Technical & Administrative Personnel as per "Form G"	

B. Checklist of documents to be submitted online:

Price Bid /Financial Bid:

I	**BOQ.xls**	

FORM – A
STRUCTURE & ORGANISATION

1	Name & complete address of the bidder	
2	Telephone no. /Telex no/Fax no.	
3	Legal status of the bidder (attach certified copies of original document defining the legal status)	(a) A proprietary firm (b) A firm in partnership (c) A limited company or Corporation
4	Details of incorporation/ commencement of business	
5	Date of commencement of business	
6	Income Tax Permanent Account No (PAN)	
7	Particulars of registration with various Government Bodies for Interior works (submit proof, duly attested by bidder)	
8	Name & designation of Directors & partners	
9	Name and designation of Authorized signatory authorized act for the Organization.	
10	Was the Bidder ever required to suspend work for a period of more than six months continuously, After he commenced the work? If so, give the name of the project and reasons of Suspension of work	
11	Has the Bidder, or any constituent partner in case of partnership firm, ever abandoned the Awarded work before its completion? If so, give name of the project and reasons for	

	Abandonment.	
	Has the Bidder, or any constituent partner in case of partnership firm, ever been debarred/black listed for tendering in any organization at any time? If so, give details.	
	Has the Bidder or any constituent partner in case of partnership firm, ever been convicted by a court of law? if so, give details.	
	Any other information considered necessary related to the Tender that has not been included above.	
	Name and address particulars of Chartered Accountant/Statutory Auditor verifying the financial information	
	Name and Complete Address particulars of the Bidder's Bankers	

Date:

Signature of the Bidder/
Authorized Signatory

Seal of Bidder

FORM 'B' FINANCIAL

INFORMATION

Name of the Bidder …….. :

	Bankers Details	
	Name of Bank	
	Address	
	City	
	Pin Code	
	Name & Designation	
	Phone Nos. with STD Code	
	E-mail Ids	
	Fax No.	
	Details of Chartered Accountant/Financial Auditors	
	Name of Firm/CA	
	Address	
	City	
	Pin Code	
	Name & Designation	
	Phone Nos. with STD Code	
	E-mail Ids	
	Fax No.	

I. Financial Analysis – Details to be furnished duly supported by figures in balance sheet/profit & loss account for the last three years duly certified by the Statutory Auditor.

SI No	Particulars	Financial Year (Fig. in Rs. Lakhs)			
		2019-20	2020-21	2021-22	Average annual turnover
	Mention whether records are audited	Yes/ No	Yes/ No	Yes/ No	
1	Gross Annual turnover on interior finishing works.				
2.	Profit (+)/ Loss (-)				
	Financial Position				
	Cash				
	Current Assets				
	Current Liabilities				
	Working capital (b-c)				
	Newt worth				
4.	Whether Audited	Yes/ No.			

II. Income Tax return for the last five years (to be attached)
Solvency certificate from bankers of bidder in the prescribed form 'C' issued after date of issue of these tender documents. (To be enclosed in a separate sealed envelope)

Date

Signature of bidder/
Authorised Signatory

Seal of bidder

Signature of Statutory Auditor/
Chartered Accountant with Seal

FORM 'C'

FORM OF BANKER's SOLVENCY CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge & information, M/s ……..…. having registered office at ……..…,a customer of our bank, is respectable & can be treated as good for any engagement up to a limit of Rs. ……..……Lakh (Rupees …..……..……Lakh).

This certificate is issued without any guarantee or responsibility on the bank or any of its officers.

SIGNATURE
(FOR BANK)

Note:

This certificate should have been issued on or after 31.03.2022
Banker's certificate should be on letter head of the Bank, sealed in cover, addressed to Director AIIMS, PATNA.
In case of partnership firm, certificate should include names of all partners as recorded with the bank.

FORM 'D'

DETAILS OF ALL ELIGIBLE SIMILAR NATURE OF WORKS COMPLETED DURING THE LAST FIVE YEARS ENDING ON 31.03.2022

SI no.	Name of work/Project & location	Owner of sponsoring organization	Cost of Work in crores of rupees as per awarded letter	Final cost at completion	Date of commencement as per	Actual date of commencement	Stipulated date of completion	Actual date of completion	Litigation/arbitration case pending/ in progress with details.	Name and address/telephone number of officer to whom reference may be	Whether the work has been done on back to back basis (Yes /No)
1	2	3	4	5	6	7	8	9	10	11	12

Note: Please attach attested copies of relevant Document/PO/Complete certificate etc.

* including gross amount claimed and amount awarded by the Arbitrator.

Date:

Signature of the Bidder/
Authorised Signatory

Seal of Bidder:

Signature of Statutory Auditor/
Chartered Accountant with Seal

FORM 'E'

PROJECTS UNDER EXECUTION OR AWARDED (As on 31.03.2022)

SI no.	Name of work/Project & location	Owner of sponsoring organization	Cost of Work in crores of rupees as per awarded letter	Date of commencement as per	Actual date of commencement	Stipulated date of completion	Up to date percentage progress of work.	Slow progress if any and reasons thereof	Name and address/telephone number of officer to whom reference may be	Remark
1	2	3	4	5	6	7	8	9	10	11

Note: Please attach attested copies of relevant Document/PO/Complete certificate etc.

Certified that the above list of works is complete and no work has been left out and that the information given is correct to the best of my knowledge and belief.

Date:

Signature of the Bidder/
Authorised Signatory

Seal of Bidder:

Signature of Statutory Auditor/
Chartered Accountant with Seal

FORM 'F'

PERFORMANCE REPORT OF WORKS REFERRED TO IN FORMS "D" & "E"

Name of work/project & location

Name and address of the authority under whom the works executed:

Agreement No.

Estimated cost

Tendered cost

Gross amount of the work completed

Date of start

Date of completion
Stipulated date of completion
Actual date of completion

Amount of compensation levied for delayed completion, if any.

Amount of reduced rate items, if any

i) Did the contractor go for arbitration
If yes, total amount of claim
iii) Total amount awarded

Performance report

(1)	Quality of work	Very Good/Good/Fair/Poor
(2)	Financial soundness	Very Good/Good/Fair/Poor
(3)	Technical Proficiency	Very Good/Good/Fair/Poor
(4)	Resourcefulness	Very Good/Good/Fair/Poor
(5)	General Behaviour	Very Good/Good/Fair/Poor

Dated:

Executive Engineer or Equivalent

FORM 'G"

DETAILS OF TECHNICAL & ADMINISTRATIVE PERSONNEL TO BE EMPLOYED FOR THE WORK

S.I No	Name	Designation	Regular /Part time	Qualification	Experience in years		Role & Responsibilities	Projects involving	Deployment (Part-time/Full-time)
					Total	In present company			

Date:

Signature of the Bidder/
Authorised Signatory

Seal of Bidder:

Signature of Statutory Auditor /
Chartered Accountant with Seal

(TO BE SWORN ON A NON-JUDICIAL STAMP PAPEROF Rs.100/-)

AFFIDAVIT

*I/we ……..……. authorized signatory of…… (Mention name of firm/company and its complete address)……..do hereby solemnly affirm and declare as under:-

That *I/we……*am/are registered as (mention name of *firm/company) vide registration No…… under the provisions of…….(mention the name of the Act).

That*I/we……have applied in response to the Tender Documents for Construction of various Buildings and other related structures and facility for **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna** That the above named Bidder is eligible to submit the aforesaid Application , as neither the bidder nor any of its constituents have been barred by the Central Government and/or any State Government in India at any time prior to the date of submitting this affidavit.

That the above named Bidder during the last three years has neither failed to perform on any Agreement nor was expelled from any project or Agreement nor any Agreement was terminated for any breach by the bidder.

5. That the above named Bidder has not been blacklisted by any State/Central Government Department/Autonomous Bodies or PSU.

That the above named Bidder is not in default of payment of statutory dues (other than disputes being contested by the Bidder).

That the above named Bidder confirms that eligible similar work(s) have not been got executed through another contractor on back to back basis.

That the above named Bidder confirms and agrees that, if any such violation comes to the notice of AIIMS PATNA ("Owner") in the future, then the Owner shall be at liberty to initiate appropriate penal and legal action against the Tenderer and to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

DEPONENT

VERIFICATION

*I/we…….. the above named deponent do hereby verify that the contents of the aforesaid paragraphs 1 to 8 are true and correct to the best of*my/our knowledge and belief and nothing is concealed there from.

Verified at ……this ……day of ……

DEPONENT

* Strike out whichever is not applicable.

Pledge of Compliance

(To be given by the authorized signatory of the Bidder)

Name:
Designation:

Date:

DECLARATION

I,……..(name designation with company name), actingon behalf of ……(company name& address), which is an bidder for the Application **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna** hereby undertake that my Firm/company is fully conscious that if my Firm/company is selected for providing the services to AIIMS PATNA, at no point of time my Firm/company or its officials performing any responsibility on its behalf, or any associates sub-hired by us for executing any activity in the part of the project assigned to us, shall consciously or callously do anything to delay, obstruct or stall the progress of the project or any activities, decisions or actions related to the project, nor shall it refuse to cooperate or comply with any provisions of the Agreement or with any instructions issued by AIIMSPATNA, including its authorized representatives, officials, PM/PMC and/or MPD (Project Architect) for the stated or unstated reason that AIIMS PATNA's position, approach or assessment related to any elements or aspects of the Project is at variance with the position, approach or assessment of my company or its officials.

It is further undertaken that in the event of any breach of the above undertaking during the entire period of project implementation assigned to my Firm/company, the full responsibility of any losses incurred by AIIMS PATNA, including financial, time or reputation losses, as assessed by AIIMS PATNA, shall lie with my company and its officials and my company shall fully compensate AIIMS PATNA for all such losses without resort to conciliation or arbitration processes.

Date:

Signature of the Bidder/
Authorised Signatory

Seal of Bidder:

Signature of Statutory Auditor /
Chartered Accountant with Seal

INTEGRITY PACT

To,
Director,
AIIMS PATNA
PATNA

Subject: **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna.**

Dear Sir,

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

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

I/ we confirm acceptance and compliance with the integrity agreement, in letter and spirit and further agree integrity agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by AIIMS Patna. I/ We acknowledge and accept the duration of the integrity agreement, which shall be in line with article 1 of the enclosed integrity agreement.

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

Yours faithfully

Seal of bidder
Date:

Signature(s) of Bidder (s)
Name and Address

INTEGRITY AGREEMENT

This integrity Agreement is made at …… on this ……. Day of ……2022.

BETWEEN

AIIMS Patna represented through its Director……
Hereinafter referred as the 'Principal/Owner' which expression shall unless repugnant to the meaning or context hereof includes its successors and permitted assigns)
AND
……
Through…….. (Hereinafter referred to as the "Bidder / Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal/ Owner has floated the Tender (NIT No……..) (Hereinafter referred to as "Tender /Bid") and intends to award, under laid down organizational procedure, Contract for …….
……. (Name of the work) Hereinafter referred to as the "contract".

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

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

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

Article 1: Commitment of the Principal/Owner

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

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

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

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

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

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

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

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

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

The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary

contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

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

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

The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

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

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

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

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the

Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

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

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

Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or
Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

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

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

If the Bidder/Contractor can prove that he has resorted/recouped the damage caused

by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

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

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

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

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

Article 6- Duration of the Pact

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

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

Article 7- Other Provisions

This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Institute i.e. Principal/Owner, who has floated the Tender.

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

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

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

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

Article 8- LEGAL AND PRIOR RIGHTS

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

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

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

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

WITNESSES:

1. .....
(signature, name and address)

2. .....
(signature, name and address)

Place:
Dated :

Form of Earnest Money Deposit (Bank Guarantee Bond)

WHEREAS, Bidder……...… (Name of Bidder) (Hereinafter called "the bidder") has submitted his tender dated ……..…. (Date) for the construction of ……..……. (Name of work) Hereinafter called "the tender")

KNOW all people by these presents that we…….. registered office at ……....…..(Hereinafter called "the Bank") are bound unto Director, AIIMS Patna of in the sum of Rs…….....(Rs in words…… for which payment well and truly to be made to the said Director, AIIMS Patna, the Bank binds itself, his successors and assigns by these presents.

Sealed with the common seal of the said bank this …….. Day of ……..20…….. THE CONDITIONS of this obligation are:

If after opening of tender, the Bidder withdraws, his tender during the period of validity of tender (including extended validity of t ender) specified in the form of Tender;

If the Bidder having been notified of the acceptance of his tender by the Director, AIIMS Patna

Fails or refuses to execute the form of Agreement in accordance with the instructions to the bidder, if required;

OR

Fails or refuses to furnish the performance Guarantee, in accordance with the provisions of tender document and instructions to the bidder,

We undertake to pay to the **Director, AIIMS PATNA,** either up to the above amount or part thereof upon receipt of his first written demand, without the **Director, AIIMS PATNA,** having to substantiates his demand, provided that in his demand the **Director, AIIMSPATNA,** will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the **date .....** after the deadline for submission of tender as such deadline is stated in the Instructions to the Bidder or as it may be extended by the **Director, AIIMS PATNA,** notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE .....

SIGNATURE OF THE BANK

WITNESS .....

SEAL

(SIGNATURE, NAME AND ADDRESS)

.

(To be executed by and between the Owner and the successful tenderer)

FORMAT OF AGREEMENT

This agreement is executed at _____(place of execution) on the _____day of _____, 2022 BETWEEN _____, which expression shall mean AIIMS PATNA ("Owner") and include its successors and assigns of the FIRST PART AND _____ ,(name and address of the successful tenderer) ("Contractor") of the SECOND PART.

The Owner and the Contractor shall be individually referred to as the "Party" and collectively referred to as the "Parties"

WHEREAS **AIIMS PATNA**(the Owner) is desirous of developing a permanent campus and invited tenders by issuing Notice Inviting Tender ("Tender") for selection of a contractor for constructing the said campus. The Contractor has submitted its bid pursuant to the issuing of the Tender by the Owner.

WHEREAS the details of the work proposed to be executed by the Contractor is more particularly specified in the Tender (name and identification number of Contract) ("Works") and the Owner has accepted the Tender submitted by the Contractor for the execution and completion of the Works and the remedying of any defects therein, at a contract price of Rs.....(Rupees _____(*in words*)

WHEREAS the Owner has now desirous of laying down the terms and conditions governing the execution of the Works and has therefore, requested the Contractor to execute the present Agreement.

NOW THIS AGREEMENT WITNESSETH AS:

In this Agreement, words and expressions shall carry the same meanings as are ascribed to them in the Conditions of Contract as more particularly mentioned in the Tender. The Parties agree that the Tender shall form an integral part of this Agreement and shall be read and construed accordingly.

In consideration of the payments to be made by AIIMS PATNA(the Owner) to the Contractor as the consideration for execution of the Works ("Consideration"), the Contractor hereby covenants with AIIMS PATNA(the Owner) to execute and complete the Works and remedy the defects therein in conformity in all aspects with the provisions of the Tender and this Agreement.

The Owner hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and in the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Tender and this Agreement at the times and in the manner prescribed under the Tender.

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

Notice Inviting Tender

Contractor's Application and documents submitted for Selection
Letter of Acceptance;
Notice to proceed with the Works;
Contractor's Tender;
Contract Data;
Conditions of Contract (including Special Conditions of Contract);
Specifications;
Drawings;
Bill of Quantities; and
Any other documents listed in the Contract Data as forming part of the Contract.

In witness whereof the Parties have caused this Agreement to be executed on the day and year first written above.

The Common Seal of

_____

_____

Was hereunder to affixed in the presence of:

Signed Sealed and Delivered by the said

_____

Binding Signature of Owner

_____

Binding Signature of Contractor

_____

in the presence of

_____

_____

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work **Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna.** I//we hereby t ender for the exaction of the Work specified for Director AIIMS Patna, within the time specified in Schedule ' F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and directions and in Clause 11 of the Conditions of contract ad with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for one hundred twenty (120) days from the date of opening of Eligibility Documents and not to make any modification in its terms and conditions.

A sum of **Rs.** _____/- is hereby forwarded in demand draft/bank guarantee issued by a scheduled bank as earnest money. If I/We fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said Director, AIIMS Patna or his successors representatives, in office in office shall With out prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/W e agree that Director AIIMS PATNA or the successors representatives in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said the performance guarantee absolutely. The said performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the General Conditions of Contract. Further, I/We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

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

Dated: ……..…….** **Signature of Contractor ****

Witness: **

Address: ** **Postal Address ****

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of the AIIMS PATNA for a sum of Rs..……..……(Rupees……...).

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

*
*
*

For & on behalf of AIIMS Patna

Signature ……

Designation ……

Dated: ……..

PROFORMA OF SCHEDULES

SCHEDULE'A' **As per BOQ**

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

SL. No.	Description of item	Quantity	Rates in figures & words at Which the material will be charged to the contractor	Place of issue
NIL				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S. No.	**Description**	**Hire charges per day**	**Place of Issue**
NIL			

SCHEDULE 'D'

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

Special Conditions of Contract
Particular Specifications/CPWD specification
Tender Drawings
Guarantee Certificate
General Sound Engineering Practice

SCHEDULE 'E'

Reference to General Conditions of Contract: General Conditions of Contract
With up to date correction slip

Name of work	**Operation and CAMC of substation no - 3 , 4 & residential complex at AIIMS Patna**.

ESTIMATED COST OF WORK

I.	Estimated Cost	**Rs.** 93,39,465/-
II.	Earnest Money	**Rs.** 1,86,790/-

I.	Performance Guarantee	**3.00 % of tendered amount**
II.	Security Deposit	**3.00 % of tendered value(Will Be Deducted From RA Bills)**

SCHEDULE 'F' (GENERAL RULES & DIRECTIONS)

OFFICER INVITING TENDER: Director, AIIMS PATNA

Definitions:

1.	Engineer-in-Charge	**Superintending Engineer, or any other official designated to represent AIIMS Patna**
2.	Accepting Authority	**Director, AIIMS, PATNA or successor thereof.**
3.	Percentage on cost of materials And Labour cover altogether overheads and profits	**15.00 %**
4.	Standard Schedule of Rates	DSR -2018 & Non-Schedule items based on MR, (Market Rate)
5.	Department	**AIIMS PATNA**
6.	Contract Form	**Form 8, General Conditions of Contract**

Clause 1

	Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour	**15 (Fifteen) days**
	licenses, registration with EPFO, ESIC, BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance	NA
2.	Maximum allowable extension beyond the period provided in (i) Above	**7 (Seven) days with late fee @ 0.1% per day of the PG Amount.**

Clause 2

Authority for fixing compensation under clause 2	**Director, AIIMS Patna Or successor thereof.**

Clause 2A

Whether Clause 2A shall be applicable	**Yes**

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of Start	**7 (Seventh) day or date of handing over of site whichever is later.**

Mile stones for works

SI no.	Description of Milestone (Physical)	Time allowed in days (From date of Start)	Amount to be withheld in case of non-achievement of milestones
1	Operation of Electrical substation	Daily basis	1.0% of contract amount
2	Attending of breakdown,	As & when required	1.25% of contract amount
3	Maintenace of Electrical substation .	Monthly basis	1.25% of contract amount
4	Maintenances of DG Sets with main LT panels cum AFM panels rising mains and all electrical installation LT panel cum AFM Panel	Monthly basis	1.25% of contract amount

Withheld amount shall be released if and when subsequent Milestone is achieved within respective time specified.

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

 # After successful completion of one year of CAMC, Contract period may be extended for one year based on satisfactorily performance of vendor during contract period or requirement of AIIMS with 5% increment on basic tendered value (Up to next 2 Years).

Authority to decide:

(i)	Extension of Time	Director, AIIMS Patna Or successor thereof.
(ii)	Rescheduling of milestone	Director, AIIMS Patna Or successor thereof.
(iii)	Shifting of date of start in case of delay in handing over of site.	Director, AIIMS Patna Or successor thereof.

Clause 6,6A

Clause applicable – (6 or 6A)	**6A**

Clause 7

Gross work to be done together with net payment / adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment	**Rs. 6.00 Lakhs**

Clause 7A

Whether Clause 7A shall be applicable	**YES**

Clause 10A

Nil

Clause 10 B (ii)

Whether Clauses 10 B (ii) shall be applicable	No

Clause 10 C

Component of labour expressed as percent Not applicable of value of work	**NA**

Clause 10CA: - Not Applicable

Clause 10CC: - Not Applicable

Clause 11

Specifications to be followed for execution of work	CPWD Specification for works -2019 Vol I & II with up to date correction slips till last date of submission of tender and as detailed in nomenclature of items particular specification attached with the tender

Clause 12

Type of work	Project and original work.
Maximum percentage for quantity of item work to be executed beyond which rates are to be determined in accordance with clauses 12.2, 12.3	Please refer below

12.2, 12.3	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for Electrical work	30% (Thirty percent)

Clause 16

Competent authority for deciding reduced rates	Director, AIIMS Patna or successor thereof

Clause 17

Defect Liability Period will be 12 months after recording completion certificates

Clause 25

Constitution of Dispute Redressal Committee:-

The Dispute Redressal Committee shall be constituted by Director, AIIMS PATNA, if required and deemed necessary. DRC shall constitute one chairman and two members.

Clause 36 (i): Requirement of Technical Representative(s) and recovery Rate

S/No	**Minimum qualification of technical representative**	**Discipline**	**Designation (principal technical/technical representative**	**Minimum Exp in Yrs**	**Number**	**Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i) per month**	
						Figures	**Words**
1	Site Engineer	Electrical	Site engineer	02	01	**Rs 25000/-**	**Twenty five thousand only**
2	Electrician	Electrical	Electriciam	01	09	**Rs 15000/-**	**Fifteen thousand only**

Note: Assistant Engineers, retired from Govt. services that are holding Diploma, will be treated at par with Graduate Engineers.

Clause 42

(i) (a) Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of **Delhi Schedule of Rates 2018** printed by C.P.W.D.

(ii) Variations permissible on theoretical quantities.

(a) Cement for works with estimated cost put to tender not more than 5 lakhs — 3% plus/minus

For works with estimated cost put to tender more than 5 lakhs — 2% plus/minus

(b) Bitumen for all works. — 2.5% plus & only & nil on minus side.

(c) Steel Reinforcement and structural steel sections for each diameter , section and category — 2% plus/minus

(d) All other materials — Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No.	Description of item	Rates in figures and words at which recovery shall be made from the Contractor.	
		Excess beyond permissible variation	Less use beyond the permissible variation.
1. 2. 3. 4. 5.	Cement Steel reinforcement Structural Sections Bitumen issued free Bitumen issued at stipulated fixed price	-------NIL--------	-------NIL--------

SCHEDULE- A
GENERAL RULES & DIRECTIONS

All work proposed for execution for contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in Newspapers as the case may be.

This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance Guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, design and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.

In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1932.

Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

Application for Item Rate Tender only

Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one.

In case the lowest tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors is same, then such lowest contractors

may be asked to submit sealed revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads as the case may be, but the revised quoted rate of each item of schedule of quantity for all sub sections / sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.

If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Director AIIMS PATNA or his representative & the lowest contractors those have quoted equal amount of their tenders.

In case of any such lowest contractor in his revised offer quotes rate of any item more than their respective original rate quoted already at the time of submission of tender, then such revised offer shall be treated invalid. Such case of revised offer of the lowest contractor or case of refusal to submit revised offer by the lowest contractor shall be treated as withdrawal of his tender before acceptance and 50% of his earnest money shall be forfeited.

In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest contractors.

Contractors, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the re-tendering process of the work.

4A Applicable for Percentage Rate Tender only

In case of Percentage Rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if:

The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender.

The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender.

The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender.

Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily

rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.

4B. In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.

In case any of such contractors refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.

If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence of Director AIIMS PATNA of his representative and the lowest contractors those have quoted equal amount of their tenders.

In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor.

Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.

The officer inviting tender or his duly authorized assistant will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule-I. In the event of a tender being rejected, the earnest money shall thereupon be returned to the contractor remitting the same, without any interest.

The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.

The receipt of an accountant or clerk for any money paid by the contractor will not be

considered as any acknowledgment or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.

The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue-rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.

The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.

9A. Use of correcting fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.

In the case of Item Rate Tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly. (Applicable for Item Rate Tender only). However, if a tenderer quotes nil rates against each item in item rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

10A. In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be rejected. Percentage quoted by the contractors in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy.

In the case of any tender where unit rate of any item/items appear unrealistic, such

tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.

All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line. (Applicable for Item Rate Tender only).

12A. In Percentage Rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15P and in case of words, the word 'Rupees' should precede and the word 'Paisa' should be written at the end. (Applicable for Item Rate Tender only).

(i) The Contractor whose tender is accepted, will be required to furnish performance guarantee of 3% (three percentage) of the tendered amount within the period specified in Schedule F. The guarantee This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form.

(ii) The contractor whose tender is accepted will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 3% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills of the contractor at the rates mentioned above and the earnest money deposited at the time of tenders, will be treated as a part of the Security Deposit. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.

On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Institute shall be communicated in writing to the Institute.

GST, purchase tax, turnover tax or any other tax applicable in respect of this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same. However, in respect of service tax, same shall be paid by the contractor to the concerned department on demand and it will be reimbursed to him by the AIIMS PATNA after satisfying that it has been actually and genuinely paid by the contractor. The applicable and eligible GST shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment provided same are in order.

The contractor shall give a list of Institute's employees related to him.

The tender for the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.

The tender for composite work includes, in addition to building work, all other works such as sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor (B&R) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply drainage, electrical and horticulture works in the composite tender.

The contractor shall submit list of works which are in hand (progress) in the following form:

Name of work	Name and particulars of Divn. Where work is being executed	Value of work	Position of works in progress	Remarks

The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Institute, may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CONDITIONS OF CONTRACT

Definitions

1. **The Contract** means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority of AIIMS PATNA 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 Institute. All these documents, taken together, shall be deemed to form one contract and shall be complementary to one another.

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

   The expression **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 to be executed whether temporary or permanent, and whether original, altered, substituted or additional.

   (ii) **Site** shall mean the land/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

   Contractor shall mean the individual, firm or company, whether representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.

   Director means the Director, AIIMS PATNA and his successors.

   AIIMS PATNA means AIIMS PATNA through Director or its assignees and successors or any other official/agency assigned by the Institute.

   Government shall mean the Government of India may be.

   Accepting Authority shall mean the Director, AIIMS PATNA.

   (viii) **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 Accepting Authority.

   Market Rate shall be the rate as decided by Director AIIMS PATNA on the basis of the cost of materials and labour at the site where the work is to be executed plus

the provisions to cover, all overheads and profits.

Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates mentioned in Schedule 'F', hereunder, with the amendments thereto issued up to the date of receipt of the tender.

Institute means AIIMS PATNA which invites tenders on behalf of Director, AIIMS PATNA.

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Tendered value means the value of the entire work as stipulated in the letter of award.

the date of start as specified in schedule 'F' or the first date of handing over of the site, whichever is later, in accordance with the phasing if any, as indicated in the tender document.

Scope and Performance

Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.

Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed

and published documents, together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be carried out

The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule-A) shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of Tender

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices

quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and Adjustment of Errors

The several documents forming the Contact are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and Special Conditions in preference to General Conditions.

8.1 In the case of discrepancy between the Schedule of Quantities, the Specifications and/ or the Drawings, the following order of preference shall be observed:-

Description of Schedule of Quantities.
Particular Specification and Special Conditions, if any.
Drawings
CPWD Specifications 2009
Indian Standard Specifications of B.I.S.
DSR 2016

8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

Signing of Contract

The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:-

the notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.

Standard Form as mentioned in Schedule 'F' consisting of:

Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexures thereto.
Safety Code.

Model Rules for the protection of health, sanitary arrangements for workers employed by Institute or its contractors.

Contractor's Labour Regulations.
List of Acts and omissions for which fines can be imposed.

No payment for the work done will be made unless contract is signed by the contractor.

CLAUSES OF CONTRACT

CLAUSE 1

Performance Guarantee

The contractor whose tender is accepted shall submit an irrevocable Performance Guarantee of 3% (Three percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance. This period can be further extended by Institute up to a maximum period as specified in Schedule 'F' on written request of the contractor stating the reason for delays in procuring the Performance Guarantee, to the Satisfaction of Institute. This guarantee shall be in the form of Demand Draft of any scheduled bank/Pay Order of any scheduled bank or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the form annexed hereto. In case a fixed deposit receipt of any Bank is furnished by the contractor to Institute as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to Institute to make good the deficit. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule F including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

The Performance Guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the Engineer-in-charge/ competent authority, the Performance Guarantee shall be returned to the contractor, without any interest. However, in case of contracts involving maintenance of building and services / any other work after construction of same building and services / other work, then 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately.

In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the Performance Guarantee shall stand forfeited in full and shall be absolutely at the disposal of the Institute.

CLAUSE 1 A

Recovery of Security Deposit

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit Institute at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 3% (Three percent) of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 3% (Three percent) of the tendered value of the work. Such deductions will be made and held by Institute by way of Security Deposit unless he/they has/have deposited the amount of Security at the rate mentioned above in cash or in the form of Government Securities or fixed deposit receipts. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Institute as part of the security deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Institute to make good the deficit.

All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due to or may become due to the contractor by Institute on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in DD or fixed deposit receipt tendered by the State Bank of India or by Scheduled Banks endorsed in favour of the Institute, any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof.

The Security Deposit as deducted above can be released against bank guarantee issued by a scheduled bank, on its accumulations to a minimum of Rs. 5 lacs subject to the condition that amount of such bank guarantee, except last one, shall not be less than Rs. 5 lac. Provided further that the validity of bank guarantee shall be in conformity with provisions contained in clause 17 which shall be extended from time to time depending upon extension of contract granted under provisions of clause 2 and clause 5.

In case of contracts involving maintenance of building and services / any other work after construction of same building and services / other work, then 50% of Performance Guarantee shall be retained as Security Deposit. The same shall be returned year wise proportionately.

CLAUSE 2

Compensation for Delay

If the contractor fails to maintain the required progress in terms of Clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to

the Institute on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the authority specified in schedule 'F' (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clause 5 or that the work remains incomplete.

Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work or of the Tendered Value of the item or group of items of work for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Institute. In case, the contractor does not achieve a particular milestone mentioned in schedule F, or the re-scheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of Extension of Time. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released based on the decision of the Institute. In case the contractor fails to make up for the delay in subsequent milestone(s), Amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

The completion period of the entire work shall be as stipulated in Schedule F. The time limit specified above and as approved in writing by Institute shall be strictly adhered to and followed. Liquidated Damages will be applicable, item wise and against item wise time schedules. Accordingly the Damages will be based on the value of the Item for which delay has occurred. In case of delay, the penalty shall be recoverable from the Security Deposit provided by the Contractor and if the Security Deposit is not sufficient, then from the Performance Bank Guarantee or any sum payable to the Contractor under this Contract with the AIIMS PATNA.

CLAUSE 2A

Incentive for early completion

In case, the contractor completes the work ahead of updated stipulated date of completion considering the effect of extra work (to be calculated on pro-rata basis as cost of extra work X

stipulated period / tendered cost), but excluding any hindrance whatsoever on the part of either party, a bonus shall be payable to the contractor by the following formula:

Where

B = Bonus payable to the contractor in Rs. subject to a maximum of 5 percent of the tendered value

Tv = Tendered value of the work in Rs

Ts = Time allowed for execution of work as mentioned in schedule F in number of days

Ta = Actual time taken to complete the entire work including deviations/variations in the work and inclusive of all hindrances (for any reason whatsoever) in number of days

Fv = Value of gross work done as per final bill in Rs.

subject to a maximum limit of 5% (five per cent) of the tendered value. The amount of bonus, if payable, shall be paid along with final bill after completion of work. Provided always that provision of the Clause 2A shall be applicable only when so provided in 'Schedule F' . However, the quality of work completed shall be an important criterion before finalization of incentive, if any.

CLAUSE 3

When Contract can be Determined

Subject to other provisions contained in this clause, Institute may, without prejudice to its 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 Institute 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 unworkman-like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.

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 Institute (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 Institute.

If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by Institute.

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 Institute.

If the contractor shall offer or give or agree to give to any person in Institute's 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 act in relation to the obtaining or execution of this or any other contract for Institute.

If the contractor shall enter into a contract with Institute in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have been previously disclosed in writing to Institute.

If the contractor shall obtain a contract with Institute as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of integrity pact.

If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.

(ix) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.

If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.

If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet

or otherwise parts with the entire works or any portion thereof without the prior written approval of Institute.

When the contractor has made himself liable for action under any of the cases aforesaid, the Accepting Authority on behalf of Institute shall have powers:

To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of Institute shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Institute.

After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by Institute, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until Institute has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE 3A

In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work or one month whichever is higher, either party may close the contract. In case contractor wants to close the contract, he shall give notice to the department stating the failure on the part of department. In such eventuality, the Performance Guarantee of the contractor shall be refunded within following time limits, but no payment on account of interest, loss of profit or damages etc. shall be payable at all:

(i) If the Tendered value of work is up to Rs. 45 lac : 15 days
(ii) If the Tendered value of work is more than 45 and up to Rs. 2.5 crore : 21 days
(iii) If the Tendered value of work exceeds Rs. 2.5 crore : 30 days

CLAUSE 4

Contractor liable to pay Compensation even if action not taken under Clause 3.

In any case in which any of the powers conferred upon Institute by Clause-3 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of Institute putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of Institute which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of Institute) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by Institute, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, Institute may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of Institute as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

CLAUSE 5

Time and Extension for Delay

The time allowed for execution of the Works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from such time period as mentioned in schedule 'F' or from the date of handing over of the site whichever is later. If the Contractor commits default in commencing the execution of the work as aforesaid, Institute shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the Performance Guarantee absolutely.

5.1 The Contractor shall submit a Programme Chart (Time and Progress) for each mile stone Along with Performance Guarantee and get it approved by the Institute. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between Institute and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure

good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per the mile stones given in Schedule 'F'.

Project Management shall be done by using project management software for works costing more than Rs. 5 Crore.

The Project Management shall be done using M.S. Project software for work costing more than Rs. 5 Crore and up to Rs. 20 Crore.

PROGRAMME CHART

The Contractor shall prepare an integrated programme chart in MS Project / Primavera software for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfillment of the programme within the stipulated period or earlier and submit the same for approval to the Institute within ten days of award of the contract. A recovery of Rs. 2500/- (for works costing up to Rs. 20 Crores / Rs. 5000/- (for works costing more than Rs. 20 crores) shall be made on per day basis in case of delay in submission of the above programme.

The programme chart should include the following:

Descriptive note explaining sequence of the various activities.

Network (PERT/CPM/BAR CHART).

Programme for procurement of materials by the contractor.

Programme of procurement of machinery / equipments having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor. In addition to above to achieve the progress of work as per programme, the contractor must bring at site adequate shuttering material required for cement concrete and R.C.C. works etc. for three floors within one month from the date of start of work till the completion of RCC work as per requirement of work. The contractor shall submit shuttering schedule adequate to complete structure work within laid down physical milestone.

If at any time, it appears to the Institute that the actual progress of work does not conform to the approved programme referred above or after rescheduling of milestone, the contractor shall produce a revised programme within 7 (seven) days, showing the modifications to the approved programme to ensure timely completion of the work. The modified schedule of programme shall be approved by the Institute. A recovery of Rs. 2500/- (for works costing up to Rs. 20 crores) / Rs. 5000/- (for works costing more than Rs. 20 crores) shall be made on per day basis in case of delay in submission of the modified programme.

The submission for approval by the Institute of such programme or such particulars shall not relieve the contractor of any of the duties or responsibilities under the contract. This is without prejudice to the right of Institute to take action against the contractor as per terms and conditions of the agreement.

The contractor shall submit the progress report using MS Project /Primavera software with base line programme referred above for the work done during previous month to the Institute on or before 5th day of each month failing which a recovery Rs. 2500/- (for works costing up to Rs. 20 Crores) / Rs. 5000/- (for works costing more than Rs. 20 Crores) shall be made on per day basis in case of delay in submission of the monthly progress report.

5.2 If the work(s) be delayed by:-

force majeure, or

abnormally bad weather, or

serious loss or damage by fire, or

civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or

delay on the part of other contractors or tradesmen engaged by Institute in executing work not forming part of the Contract, or

non-availability of stores, which are the responsibility of Institute to supply or

(vii) non-availability or break down of tools and Plant to be supplied or supplied by Institute or any other cause which, in the absolute discretion of Institute is beyond the Contractor's control.

then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the authority as indicated in Schedule 'F' but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of Institute to proceed with the works.

5.3 Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form to the authority as indicated in Schedule 'F'. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

5.4 In any such case the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension or rescheduling of the milestones shall be communicated to the Contractor by the authority as indicated in Schedule 'F' in writing, within 3 months or

4 weeks of the date of receipt of such request respectively. Non application by the contractor for extension of time/rescheduling of the milestones shall not be a bar for giving a fair and reasonable extension extension/rescheduling of the milestones by the authority as indicated in Schedule 'F' and this shall be binding on the contractor.

CLAUSE 6

Measurements of Work Done

Institute shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done.

All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by Institute or his authorized representative and by the contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by Institute and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by Institute or his representative, Institute shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative does not remain present at the time of such measurements after the contractor or his authorized representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by Institute or his representative shall be deemed to be accepted by the Contractor.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.

The contractor shall give, not less than seven days' notice to Institute or his authorized representative in charge of the work, before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work

without consent in writing of Institute or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurements without such notice having been given or Institute's consent being obtained in writing, the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Institute or his authorized representative may cause either themselves or through another representative to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

CLAUSE 6A

Computerized Measurement Book

Institute shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract. All measurements of all items having financial value shall be entered by the contractor and compiled in the shape of the Computerized Measurement Book (MB) having pages of A-4 size as per the format of the Institute so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from Institute or his authorized representative as per interval or program fixed in consultation with Institute or his authorized representative. After the necessary corrections made by Institute, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to Institute for the dated signatures by Institute and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be got checked/test checked from Institute and/or his authorized representative. The contractor will, thereafter, incorporate such changes as may be done during these checks/test checks in his draft computerized measurements, and submit to the Institute a computerized measurement book, duly bound, and with its pages machine numbered. Institute and/or his authorized

representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.

The final, fair, computerized measurement book given by the contractor, duly bound, with its pages machine numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is noticed, the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the Institute. Thereafter, the MB shall be taken in the Institute records, and allotted a number as per the Register of Computerised MBs. This should be done before the corresponding bill is submitted to the Institute for payment. The contractor shall submit two spare copies of such computerized MBs for the purpose of reference and record by the various officers of the Institute.

The contractor shall also submit to the Institute separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the bill. Thereafter, this bill will be processed by the Institute and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by Institute or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the Specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days' notice to Institute or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of Institute or his authorized representative in charge of the work who shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of checking and/or test checking measurements without such notice having been given or Institute's consent being obtained in writing the same shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which

the same was executed.

Institute or his authorized representative may cause either themselves or through another representative to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over-measurement or defects noticed till completion of the defects liability period.

CLAUSE 7
Payment on Intermediate Certificate to be Regarded as Advances

No payment shall be made for work, estimated to cost Rs. Twenty Thousand or less, till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. Twenty thousand, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the Institute in triplicate on or before the date of every month fixed for the same by the Institute. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/ adjustment of advances for material collected, if any, since the last such payment is less than Rs. Twenty thousand in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Institute shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Institute shall prepare or cause to be prepared such bills in which event no claim whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Institute certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Institute. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to the Institute together with the recovery/account of the material issued by the Institute and dismantled materials, if any.

Running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the Institute in triplicate on or before the date of every month fixed for the same by AIIMS PATNA. The contractor shall not be entitled to be paid any interim payment if the gross work done together with net payment/adjustment of advances, if any, since the last such payment is less than the amount specified in Schedule 'F', in which case the interim bill shall be prepared on the

appointed date of the month after the requisite progress is achieved. AIIMSPATNA shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, AIIMS PATNA shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by AIIMS PATNA certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by AIIMS PATNA. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to AIIMS PATNA together with the account of the material issued by the Institute, or dismantled materials, if any.

All such interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by AIIMS PATNA relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of AIIMS PATNA under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the Institute to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

Each bill shall be accompanied by the following documents.

- Measurements and quantities of items of Work done since last bill.
- Physical Progress Report along with relevant Photographs.
- Copies of quality control tests in specified format covering the Work done since last bill.
- Copies of instructions recorded in the site instruction book containing the instructions and compliance made thereof, covering the Work done since last bill.
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CLAUSE 7A

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

CLAUSE 8

Completion Certificate and Completion Plans

Within ten days of the completion of the work, the contractor shall give notice of such completion to Institute and within thirty days of the receipt of such notice, Institute 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. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt completely from all the places which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by Institute.

If the contractor shall fail to comply with the requirements of this Clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, Institute may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

CLAUSE 8A

Contactor to Keep Site Clean

The contractor is required to keep site clean. When any repair or maintenance of works are carried out, the splashes and droppings from white washing, color washing, painting etc., on walls, floor, windows, etc. shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc. where the work is done: without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-Charge shall have the right to get this work done at the cost of the contractor or through any other agency. Before taking such action, the Engineer-in-Charge shall give ten days' notice in writing to the contractor.

CLAUSE 8B

Completion Plan to be submitted by the Contractor

The contractor shall submit completion plan within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to 2.5% of the value of the work subject to a ceiling of Rs. 15,000 (Rs.

Fifteen thousand only) as may be fixed by the Institute and in this respect the decision of the Institute shall be final and binding on the contractor.

The contractor shall submit completion plan for water, sewerage and drainage line plan within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, the department will get it done through other agency at his cost and actual expenses incurred plus Rs. 15,000/- for the same shall be recovered from the contractor.

CLAUSE 9
Payment of Final Bill

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by Institute whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Institute, will, as far as possible be made within the period specified herein under, the period being reckoned from the date of receipt of the bill by the Institute or his authorized
Engineer/PMC, complete with account of materials issued by the Department and dismantled materials.

(i)	If the Tendered value of work is up to Rs. 45 lacs	:	2 months
(ii)	If the Tendered value of work is more than 45 and up to Rs. 2.5 Crore	:	3 months
(iii)	If the Tendered value of work exceeds Rs. 2.5 Crore	:	6 months

The final bill shall be accompanied by:

All technical documents on the basis of which the Work was carried out.

As-built drawings. Three sets of construction and installation drawings for all Works, including but not limited to, electrical, HVAC, Plumbing, Fire Systems and Site development, showing therein modifications, corrections and additions signed and confirmed by the Engineer-in-Charge to be "as built" drawings. The entire documentation shall be submitted in Compact Discs (CD), using latest version of AUTOCAD software.

Completion certificates for embedded and covered-up Works issued by the Engineer-in-Charge.

Certificates for tests carried out for various items of Work.

Manufacturer's operating and maintenance manuals as well as guarantee/warrantee papers, commissioning and handing over reports for whatever equipment/Materials installed.

Security Deposit of 5% (Five percent) of the Contract Value in the form of bank guarantee valid for a Defect liability period from the date of certificate

 # After successful completion of one year of CAMC, Contract period may be extended for one year based on satisfactorily performance of vendor during contract period or requirement of Aiims with 5% increment on basic tendered value (Maximum up to 2 Years).

CLAUSE 10

Materials supplied by Institute

Materials which Institute will supply are shown in Schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from Institute.

As soon as the work is awarded, the contractor shall finalise the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The Contractor shall give in writing his requirement to Institute which shall be issued to him keeping in view the progress of work as assessed by Institute, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition.

The contractor shall submit along with every running bill (on account or interim bill) material-wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Institute shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and (or the CPWD Accounts Code) all stores/materials so supplied to the contractor or procured with the assistance of the Institute shall remain the absolute property of Institute and the contractor shall be the trustee of the

stores/materials, and the said stores/materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by Institute or his authorized agent. Any such stores/materials remaining unused shall be returned to Institute in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require, but in case it is decided not to take back the stores/materials the contractor shall have no claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/materials.

On being required to return the stores/materials, the contractor shall hand over the stores/ materials on being paid or credited such price as Institute shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of Institute shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licences or permit and/or for criminal breach of trust, be liable to Institute for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the Institute within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is more if the time of completion of work exceeds 12 months, but if a part of the materials only has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by Institute whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/original condition at the time of completion or determination of the contract shall be returned to Institute at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.

CLAUSE 10 A

Materials to be provided by the Contractor

The contractor shall, at his own expense, provide all materials, required for the works. The contractor shall, at his own expense and without delay, supply to Institute samples of materials to be used on the work and shall get these approved in advance. 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 Institute furnish proof, to the satisfaction of Institute that the materials so comply. Institute shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to Institute for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of Institute shall be issued after the test results are received.

The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by Institute. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as Institute may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by Institute and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the contract or specifications. Institute or his authorized representative shall at all times 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 in obtaining the right to such access.

Institute 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, Institute 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. Institute shall also have full powers to require other proper materials to be substituted thereof and in case of default, Institute may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in schedule F.

CLAUSE 10 B

Secured Advance on Non-perishable Material

The contractor, on signing an indenture in the form to be specified by the Institute, shall

be entitled to be paid during the progress of the execution of the work up to 90% of the assessed value of any materials which are in the opinion of the Institute non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered/deducted from the next payment made under any of the clause or clauses of this contract.

Such secured advance shall also be payable on other items of perishable nature, fragile and combustible with the approval of the Institute provided the contractor provides a comprehensive insurance cover for the full cost of such materials. The decision of the Institute shall be final and binding on the contractor in this matter. No secured advance, shall however, be paid on high-risk materials such as ordinary glass, sand, petrol, diesel etc.

Mobilization Advance

Mobilization advance (Interest Bearing) not exceeding 10% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. Such advance shall be in two or more instalments to be determined by the Institute at his sole discretion. The first installment of such advance shall be released by the Institute to the contractor on a request made by the contractor to the Institute in this behalf. The second and subsequent installments shall be released by the Institute only after the contractor furnishes a proof of the satisfactory utilization of the earlier installment to the entire satisfaction of the Institute.

Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from schedule bank for the amount equal to 110% of the amount of advance and valid for the contract period. This (Bank Guarantee from Scheduled Bank for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount and likely period of completed recovery, together with interest.

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Plant Machinery & Shuttering Material Advance

An advance for plant, machinery & shuttering material required for the work and brought to site by the Contractor may be given if requested by the contractor in writing within one month of bringing such plant and machinery to site. Such advance shall be given on such expeditious execution of work and improve the quality of work. The amount of advance shall be restricted to 5% percent of the tender value. In the case of new plant and equipment to be purchased for the work, the advance shall be restricted to 90% of the price of such new plant and

equipment paid by the contractor for which the contractor shall produce evidence satisfactory to the Institute. In the case of second hand and used plants and equipment, the amount of such advance shall be limited to 50% of the depreciated value of plant and equipment as may be decided by the Institute. The contractor shall, if so required by the Institute, submit the statement of value of such old plant and equipment duly approved by a Registered Valuer recognized by the Central Board of Direct Taxes under the Income-Tax Act, 1961. No such advance shall be paid on any plant and equipment of perishable nature and on any plant and equipment of a value less than Rs. 50,000/- Seventy five per cent of such amount of advance shall be paid after the plant & equipment is brought to site and balance twenty five percent on successfully commissioning the same.

Leasing of equipment shall be considered at par with purchase of equipment and shall be covered by tripartite agreement with the following:

Leasing company which gives certificate of agreeing to lease equipment to the contractor.

Institute, and

The contractor.

This advance shall further be subject to the condition that such plant and equipment (a) are considered by the Institute to be necessary for the works; (b) and are in working order and are maintained in working order; (c) hypothecated to the Government as specified by the Institute before the payment of advance is released. The contractor shall not be permitted to remove from the site such hypothecated plant and equipment without the prior written permission of the Institute. The contractor shall be responsible for maintaining such plant and equipment in good working order during the entire period of hypothecation failing which such advance shall be entirely recovered in lump sum. For this purpose, steel scaffolding and form work shall be treated as plant and equipment.

The contractor shall insure the Plant and Machinery for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site. Any amounts not recovered from the insurer will be borne by the contractor.

The mobilization advance and plant and machinery advance in (ii) & (iii) above bear simple interest at the rate of 10 percent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty per cent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the installment. However, in the event of determination of contract, the mobilization advance and plant and machinery advance will be treated as interest bearing advance and bear simple interest at the

rate of 10 per cent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance.

If the circumstances are considered reasonable by the Institute, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Institute.

CLAUSE 10 C

Payment on Account of Increase in Prices / Wages due to Statutory Order(s)

If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Institute's stores in accordance with Clause 10 thereof) and/or wages of labour increases as a direct result of the coming into force of any fresh law, or statutory rule or order (but not due to any changes of rate in sales tax/VAT, Central/State Excise/Custom Duty) beyond the prices/wages prevailing at the time of the last stipulated date of receipt of tenders including extensions, if any, for the work during contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, then the amount of the contract shall accordingly be varied and provided further that any such increase shall be limited to the price/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.

If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Institute's stores in accordance with Clause 10 thereof) and/or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law or statutory rules or order (but not due to any changes of rate in sales tax/VAT, Central/State Excise/Custom Duty), Government shall in respect of materials incorporated in the works (excluding the materials covered under Clause 10CA and not being material supplied from the Institute's stores in accordance with Clause 10 hereof) and/or labour engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the prices of materials and/or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2.

Institute may call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages.

The contractor shall, within a reasonable time of his becoming aware of any alteration in the

price of any such materials and/or wages of labour, give notice thereof to the Institute stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.

For this purpose, the labour component of the work executed during period under consideration shall be the percentage as specified in Schedule F, of the value of work done during that period and the increase/decrease in labour shall be considered on the minimum daily wages in rupees of any unskilled adult male mazdoor, fixed under any law, statutory rule or order.

CLAUSE 10 CA

Payment due to variation in prices of materials after receipt of tender

If after submission of the tender, the price of materials specified in Schedule F increases/decreases beyond the base price(s) as indicated in Schedule F for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of Contract including the justified period extended under the provisions of Clause 5 of the Contract without any action under Clause 2.

However for work done/during the justified period extended as above, it will be limited to indices prevailing at the time of updated stipulated date of completion considering the effect of extra work (to be calculated on pro-rata basis as cost of extra work x stipulated period / tendered cost).

The increase/decrease in prices of cement, steel reinforcement and structural steel shall be determined by the Price indices issued by the Director General, CPWD. For other items provided in the Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry. Base price for cement, steel reinforcement and structural steel shall be as issued under the authority of Director General, CPWD applicable for Delhi including Noida, Gurgaon, Faridabad & Ghaziabad and for other places as issued under the authority of Zonal Chief Engineer, CPWD and base price of other materials issued by concerned Zonal chief Engineer and as indicated in Schedule 'F' as valid on the last stipulated date of receipt of tender, including extension if any and for the period under consideration. In case, price index of a particular material is not issued by Ministry of Commerce and Industry, then the price index of nearest similar material as indicated in Schedule 'F' shall be followed.

The amount of the contract shall accordingly be varied for all such materials and will be worked out as per the formula given below for individual material:-

Adjustment for component of individual material

$$V = PxQx \frac{C/ - C/o}{C/o}$$

where,

V= Variation in material cost i.e. increase or decrease in the amount of rupees to be paid or recovered.

P = Base Price of material as issued under authority of DG, CPWD or concerned Zonal Chief Engineer and as indicated in Schedule 'F'.

For Projects and Original Works

Q= Quantity of material brought at site for bonafide use in the works since previous bill excluding any such quantity consumed in the deviated quantity of items beyond deviation limit and extra / substituted item, paid /to be paid at rates derived on the basis of market rate under Clause 12.2.

For Maintenance Works

Q= Quantity of material brought at site for bonafide use in the works since previous bill including any such quantity consumed in the deviated quantity of items beyond deviation limit paid at agreement rate and extra / substituted item being scheduled items, but excluding non-schedule extra/ substituted item paid /to be paid at market rate under Clause 12.2.

Note :

The date wise record of ready mix concrete shall be kept in a register and the cement consumption for the same shall be calculated accordingly.

If built-up steel items are brought at site from workshop, then the variation shall be paid for the structural steel up to the period when the built up item / finished product is brought at site.

CIo= Price Index for cement, steel reinforcement bars and structural steel as issued by the DG, CPWD and corresponding to the time and base price of respective material indicated in Schedule 'F'. For other items, if any, provided in Schedule 'F'. All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce and corresponding to the time of base price of respective material indicated in Schedule 'F'.

CI= Price Index for cement, steel reinforcement bars and structural steel as issued under the authority of DG, CPWD for period under consideration. For other items, if any, provided in Schedule 'F'. All India Wholesale Price Index for the material for period under consideration as published by Economic Advisor as published by Economic Advisor to Government of India, Ministry of Industry and Commerce.

Note (i) In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.

Provided always that provisions of the preceding Clause 10C shall not be applicable in respect of Materials covered in this Clause.

If during progress of work or at the time of completion of work, it is noticed that any material brought at site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at the time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher.

Cement mentioned wherever in this clause includes Cement component used in RMC brought at site from outside approved RMC plants, if any.

S. No.	Materials covered under this clause	Nearest materials other than cement*, steel reinforcement bars and structural steel for which All India Wholesale Price Index to be followed	Base price and its corresponding period of all the materials covered under clause 10 CA**	
			Base Price	Corresponding Period

includes Cement component used in RMC brought at site from outside approved RMC plants, if any.

Base price and its corresponding period of all the materials covered under clause 10 CA is to be mentioned at the time of approval of NIT. In case of recall of tenders the base price may be modified by adopting latest base price, and its corresponding period.

CLAUSE 10 CC

Payment due to increase / decrease in Prices/Wages (excluding materials covered under Clause 10(CA) after Receipt of Tender for Works

If the prices of materials (not being materials supplied or services rendered at fixed prices by the department in accordance with clause 10 & 34 thereof) and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied,

subject to the condition that that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. However, for the work done during the justified period extended as above, the compensation as detailed below will be limited to prices/wages prevailing at the time of updated stipulated date of completion considering the effect of extra work (to be calculated on pro-rata basis as cost of extra work x stipulated period / tendered cost). No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the time as specified in Schedule F. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:

The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.

The cost of work on which escalation will be payable shall be reckoned as below :

(a)	Gross value of work done up to this quarter :	(A)
(b)	Gross value of work done up to the last quarter :	(B)
(c)	Gross value of work done since previous quarter (A-B)	(C)
	Full assessed value of Secured Advance (excluding materials Covered under Clause 10 CA) fresh paid in this quarter :	(D)
	Full assessed value of Secured Advance (excluding materials Covered under Clause 10 CA) recovered in this quarter :	(E)
	Full assessed value of Secured Advance for which escalation Payable in this quarter (D-E):	(F)
(g)	Advance payment made during this quarter:	(G)
(h)	Advance payment recovered during this quarter:	(H)
(i)	Advance payment for which escalation is payable in this Quarter:	(I)
	Extra items/deviated quantities of items paid as per Clause 12 Based on prevailing market rates during this quarter:	(J)
	Then, M = C+F+I-J	
	N = 0.85 M	
	Less cost of material supplied by the department as per Clause 10 and recovered during the quarter	(K)
	Less cost of services rendered at fixed charges as per Clause 34 and recovered during the quarter	(L)
	Cost of work for which escalation is applicable:	
	W = N - (K + L)	

Components for materials (except cement, reinforcement bars, structural steel or other materials covered under clause 10 CA) labour, P.O.L., etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'F'. The decision of the Institute in working out such percentage shall be binding on the contractors.

The compensation for escalation for other materials (excluding cement, reinforcement bars, structural steel or other materials covered under clause 10 CA) and P.O.L. shall be worked as per the formula given below:-

Adjustment for civil component (except cement, structural steel, reinforcement bars and other materials covered under clause 10CA) / electrical component of construction 'Materials'

$$Vm = W \times \frac{Xm}{100} \times \frac{Ml - Mlo}{Mlo}$$

Vm = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of Work done worked out as indicated in sub-para (ii) of Clause 10CC.

Xm = Component of 'materials' (except cement, structural steel, reinforcement bars and other materials covered under clause10CA) expressed as percent of the total value of work.

Ml = All India Wholesale Price Index for civil component/electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/ Group Items for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the Individual Commodities/Group Items. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

Mlo = All India Wholesale Price Index for civil component/electrical component* of construction material as worked out on the basis of All India Wholesale Price Index for Individual Commodities/Group Items valid on the last stipulated date of receipt of tender including extension, if any, as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the Individual Commodities/Group items.

*Note: relevant component only will be applicable.

(b)Adjustment for component of 'POL'

$$Vf = W \times \frac{Z}{100} \times \frac{F/ - F/o}{F/o}$$

Vf = Variation in cost of Fuel, Oil & Lubricant i.e. increase or decrease in the amount in rupees to be paid or recovered.

W = Cost of Work done worked out as indicated in sub-para (ii) of Clause 10CC.

Z = Component of Fuel, Oil & Lubricant expressed as percent of the total value of work.

FI = All India Wholesale Price Index for Fuel, Oil & Lubricant for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce, New Delhi. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)

FIo = All India Wholesale Price Index for Fuel, Oil & Lubricant valid on the last stipulated date of receipt of tender including extension, if any.

The following principles shall be followed while working out the indices mentioned [redacted] para (iii) above.

The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done during the three calendar months of the said quarter. The dates of preparation of bills as finally entered in the Measurement Book by the Institute/date of submission of bill finally by the contractor to the department in case of computerized measurement books shall be the guiding factor to decide the bills relevant to the quarterly interval. The first such payment shall be made at the end of three months after the month (excluding the month in which tender was accepted) and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.

The index (MI/FI etc.) relevant to any quarter/period for which such compensation is paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to date of completion after the quarter covered by the last such instalment of payment, is less than three months, the index Ml and Fl shall be the average of the indices for the months falling within that period.

The compensation for escalation for labour shall be worked out as per the formula given below:-

$$VL = W \times \frac{y}{100} \times \frac{L_i - L_{io}}{L_{io}}$$

VL : Variation in labour cost i.e. amount of increase or decrease in rupees to be paid or recovered.

W : Value of work done, worked out as indicated in sub-para (ii) above.

Y : Component of labour expressed as a percentage of the total value of the work.

Ll : Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to stipulated date of Completion or the minimum wage prevailing on the last date of the quarter previous to the one under consideration, whichever is less, shall be considered.)

Llo : Minimum daily wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as on the last stipulated date of receipt of tender including extension, if any.

The following principles will be followed while working out the compensation as per sub-para (v) above.

The minimum wage of an unskilled male mazdoor mentioned in sub-para (vi) above shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.

The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/or P.O.L. is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;

Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled adult male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.

In the event the price of materials and/or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply, provided that:

no such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule 'F'.

The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/or P.O.L. is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;

Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled adult male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.

In the event the price of materials and/or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply, provided that:

no such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule 'F'.

the Institute shall otherwise be entitled to lay down the procedure by which the provision of this sub-clause shall be implemented from time to time and the decision of the Institute in this behalf shall be final and binding on the contractor.

Provided always that:-

Where provisions of clause 10CC are applicable, provisions of clause 10C will not be applicable but provisions of clause 10CA will be applicable.

Where provisions of clause 10CC are not applicable, provisions of clause 10C and 10CA will become applicable.

CLAUSE 10 D

Dismantled Material to be Institute's Property

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as Institute's property and such materials shall be disposed off to the best advantage of Institute according to the instructions in writing issued by Institute.

CLAUSE 11

Work to be Executed in Accordance with Specifications, Drawings, Orders etc.

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike 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 signed by Institute.

The contractor shall comply with the provisions of the contract and with the care and

diligence execute 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.

The contractor shall have to produce and take an approval of the required shop drawings to execute the work. The MPD-PA as per requirements will give the conceptual drawing in AutoCAD format to the contractor to produce the detailed shop drawings. Contractor has to plan a schedule in advance for the necessary Shop Drawing and has to submit to the Engineer-In-Charge or any other official designated to represent AIIMS PATNA to get approval from Design Consultant if required for an approval of execution at-least fifteen days before the actual execution day.

CLAUSE 12
Deviations/Variations Extent and Pricing

Institute shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him in writing signed by Institute and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

12.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows :

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 Institute.

Deviation, Extra Items and Pricing

12.2 A. For Project and Original Works :
In the case of Extra item(s) (items that are completely new, and are in addition to the items contained in the contract), 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 Institute shall within prescribed time limit of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determined the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.

For Maintenance works including works of up gradation, aesthetic, special repair, addition / alteration :

In the case of Extra item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus / minus percentage above /below quoted contract amount.

Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.

Deviation, Substituted Items, Pricing

A. For Project and Original Works :

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

For Maintenance works including works of up gradation, aesthetic, special repair, addition / alteration :

In the case of Substituted item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus /minus percentage above / below quoted contract amount.

Payment of Substitute in case of non-scheduled items (Non-DSR items) shall be made as per the prevailing market rate.

Deviation Deviated Quantities, Pricing

A. For Project and Original Works :

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, Institute shall within prescribed time limit of 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.

For Maintenance works including works of upgradation, aesthetic, special repair, addition /alternation :

In the case of contract items, which exceed the limits laid down in Schedule F, the contractor shall be paid rates specified in the schedule of quantities.

In prescribed time limits for finalizing rates for Extra Item(s), Substitute Item(s) and Deviated Quantities of contract items are as under:

(i) If the Tendered value of work is up to Rs. 45 lacs :30 days (ii) If the Tendered value of work is more than 45 and up to Rs. 2.5 crore : 45 days

(iii) If the Tendered value of work exceeds Rs. 2.5 crore : 60 days

12.3 A. For Project and Original Works:

The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule F, and Institute shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

For Maintenance works including works of upgradation, aesthetic, special repair, addition /alternation :

In the case of decrease in the rates prevailing in the market of items for the work in excess of the limits laid down in Schedule F, the Institute shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

12.4 The contractor shall send to Institute once every three months, an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by Institute which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Accepting Authority may authorise consideration of such claims on merits.

12.5 For the purpose of operation of Schedule "F", the following works shall be treated as works relating to foundation unless & otherwise defined in the contract:

For Buildings : All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower.

For abutments, piers and well staining: All works up to 1.2 m above the bed level.

For retaining walls, wing walls, compound walls, chimneys, overhead reservoirs/tanks and other elevated structures: All works up to 1.2 metres above the ground level.

For reservoirs/tanks (other than overhead reservoirs/tanks) : All works up to 1.2 metres above the ground level.

For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.

For Roads, all items of excavation and filling including treatment of sub base.

12.6 Any operation incidental to or necessarily has to be in contemplation of tenderer while filing tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13

Foreclosure of Contract due to Abandonment or Reduction in Scope of Work

If at any time after acceptance of the tender, Institute shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, Institute shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates, full amount for works executed at site and, in

addition, a reasonable amount as certified by Institute for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure;

Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office; storage accommodation and water storage tanks.
Institute shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided. For materials taken over or to be taken over by Institute, cost of such materials as detailed by Institute shall be paid. The cost shall, however, take into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the contractor.

If any materials supplied by Institute are rendered surplus, the same except normal wastage shall be returned by the contractor to Institute at rates not exceeding those at which these were originally issued, less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, cost of transporting such materials from site to Institute stores, if so required by Institute, shall be paid.
Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.
Reasonable compensation for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by Institute, furnish to him, books of account, wage books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable amount of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by Institute as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, Institute shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by the Government from the contractor under the terms of the contract.

A compensation for such eventuality, on account of damages etc. shall be payable @0.5% of cost of work remaining incomplete on date of closure i.e. total stipulated cost of the work less the cost of work actually executed under the contract shall be payable.

CLAUSE 14

Carrying out part work at risk & cost of contractor

If contractor:

At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from Institute; or

Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by Institute; or

Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by Institute.

Institute without invoking action under Clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue thereafter to Institute, by a notice in writing to take the part work/part incomplete work of any item(s) out of his hands and shall have powers to:

Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or

Carry out the part work/part incomplete work of any item(s) by any means at the risk and cost of the contractor.

Institute 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 Institute because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract, the value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of Institute as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the Institute are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by Institute in completing the part work/part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by Institute as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to Institute in law or per as agreement be recovered from any money due to the contractor on any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, Institute shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site, etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by Institute, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance on any account or with a view to the execution of the work or the performance of the contract.

CLAUSE 15

Suspension of work

The contractor shall, on receipt of the order in writing of Institute, (whose Suspension of decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as Institute may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:

on account of any default on the part of the contractor or;

for proper execution of the works or part thereof for reasons other than the default of the contractor; or

for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by Institute.

(ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:

the contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;

(b) If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as Institute may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to Institute within fifteen days of the expiry of the period of 30 days.

(iii) If the works or part thereof is suspended on the orders of Institute for more than three months at a time, except when suspension is ordered for reason (a) in sub-para above, the contractor may after receipt of such order serve a written notice on Institute requiring permission within fifteen days from receipt by Institute of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor, if he intends to treat the suspension, where it affects only a part of the works as an omission of such part by Institute or where it affects whole of the works, as an abandonment of the works by Institute, shall within ten days of expiry of such period of 15 days give notice in writing of his intention to Institute. In the event of the contractor treating the suspension as an abandonment of the contract by Institute, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as Institute may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to Institute within 30 days of the expiry of the period of 3 months.

CLAUSE 15A

The contractor shall not be entitled to claim any compensation from Institute for the loss suffered by him on account of delay by Institute in the supply of materials in schedule 'B' where such delay is covered by difficulties relating to the supply of wagons, force majeure including non-allotment of such materials by controlling authorities, Act of God, Acts of enemies of the State/country or any reasonable cause beyond the control of the Institute.

This Clause 15A will not be applicable for works where no material is stipulated.

CLAUSE 16

Action in case work not done as per Specifications

All works under or in course of execution or executed in pursuance of the contract, shall at all times be open and accessible to the inspection and supervision of Institute, his authorized subordinates in charge of the work and all the superior officers, or any organization engaged by the Institute for Quality Assurance and of the Chief Technical Examiner's Office, and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it appears to Institute or to the officers of the organization engaged by the Institute for Quality Assurance or to the Chief Technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by the contractor for the execution of the work which are unsound or of a quality inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand in writing which shall be made within twelve months of the completion of the work from Institute specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in
part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the failing to do so within a period specified by Institute in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under Clause 2 of the contract (for non-completion of the work in time) for this default.

In such case Institute may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the authority specified in schedule 'F' may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and/or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of Institute to be conveyed in writing in respect of the same will be final and binding on the contractor.

CLAUSE 17

Contactor Liable for Damages, defects during maintenance period

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within twelve months after a certificate, final or otherwise of its completion shall have been given by Institute as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default Institute cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposit of the contractor shall not be refunded before the expiry of Defect Liability period after the

issue of the certificate, final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

Provided that in the case of road work, if in the opinion of Institute, half of the security deposit is sufficient, to meet all liabilities of the contractor under this contract, half of the security deposit will be refundable after six months and the remaining half after twelve months of the issue of the said certificate of completion or till the final bill has been prepared and passed whichever is later.

In case of Maintenance and Operation works of E&M services, the security deposit deducted from contractors shall be refunded within one month from the date of final payment or within one month from the date of completion of the maintenance contract whichever is earlier.

CLAUSE 18

Contractor to Supply Tools & Plants, etc.

The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from Institute's stores), machinery, tools & plants as specified in Schedule F. In addition to this, appliances, implements, other plants, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of Institute as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require

together with carriage therefor to and from the work. The contractor shall also supply without

charge the requisite number of persons with the means and materials

necessary for the purpose of setting out works, and counting, weighing and assisting the

measurement for examination at any time and from time to time of the work or materials.

Failing his so doing, the same may be provided by Institute at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

CLAUSE 18A

Recovery of Compensation paid to workmen

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, Institute is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Institute will recover from the contractor, the amount of the compensation so paid; and, without prejudice to the rights of the Institute under sub-section (2) of Section 12, of the said Act, Institute shall be

at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Institute to the contractor whether under this contract or otherwise. Institute shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to Institute full security for all costs for which Government might become liable in consequence of contesting such claim.

CLAUSE 18B

Ensuring Payment and Amenities to Workers if Contractor fails

ln every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970, and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, Institute is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19 (H) or under any relevant Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by Institute's Contractors, Institute will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred; and without prejudice to the rights of the Institute under sub-section(2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, Institute shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by Institute to the contractor whether under this contract or otherwise Institute shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the Institute full security for all costs for which Institute might become liable in contesting such claim.

CLAUSE 19

Labour Laws to be complied by the Contractor

The contractor shall obtain a valid licence under the Contract Labour (R&A) Act, 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also comply with provisions of the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the Building and other Construction Workers (Regulation of Employment & Conditions of Service) Act, 1996 and the Building and other Construction Workers Welfare Cess Act, 1996 and any Rules frame thereunder.

Any failure to fulfil these requirements shall attract the penal provisions of this

contract arising out of the resultant non-execution of the work.

CLAUSE 19A

No labour below the age of fourteen years shall be employed on the work.

CLAUSE 19B

Payment of Wages

Payment of wages:

The contractor shall pay to labour employed by him either directly or through sub-contractors, wages not less than fair wages as defined in the 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 Contractor's Labour Regulations made by Government from time to time 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.

(a) Institute 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.

(b) Under the provision of Minimum Wages (Central) Rules, 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, Institute shall have the right to deduct the sum or sums not paid on account of wages for weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by Institute concerned.

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 thereunder from time to time.

The contractor shall indemnify and keep indemnified Institute against payments to be made under and for the observance of the laws aforesaid and the 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.
Whatever is the minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.
The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

CLAUSE 19C

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs.200/- for each default and in addition, Institute shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19D

The contractor shall submit by the 4th and 19th of every month, to Institute, a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:-

the number of labourers employed by him on the work,
their working hours,
the wages paid to them,
the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
the number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them.

Failing which the contractor shall be liable to pay to Institute, a sum not exceeding Rs. 200/- for each default or materially incorrect statement. The decision of Institute shall be final in deducting from any bill due to the contractor, the amount levied as fine and be binding

on the contractor.

CLAUSE 19E

In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be complied with all the rules framed by Institute from time to time for the protection of health and sanitary arrangements for workers employed by the Institute and its contractors.

CLAUSE 19F

Leave and pay during leave shall be regulated as follows:-

1. Leave :
   (i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,
   in the case of miscarriage –upto 3 weeks from the date of miscarriage.

   Pay :

   in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.

   in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.

Conditions for the grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave.

The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in Appendix -I and II, and the same shall be kept at the place of work.

CLAUSE 19G

In the event of the contractor(s) committing a default or breach of any of the provisions of the Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the Institute a sum not exceeding Rs.200/- for every default, breach or furnishing,

making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of Institute shall be final and binding on the parties.

Should it appear to Institute that the contractor(s) is/are not properly observing and complying with the provisions of the Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R&A) Central Rules 1971, for the protection of health and sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") Institute shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-people as aforesaid, Institute shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). The contractor(s) shall erect, make and maintain at his/their own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, Institute shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodeled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, Institute shall have the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

CLAUSE 19H

The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by Institute.

(a) The minimum height of each hut at the eaves level shall be 2.10m (7 ft.) and the floor area to be provided will be at the rate of 2.7 sq.m. (30 sq.ft.) for each member of the worker's family staying with the labourer.

The contractor(s) shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6'x5') adjacent to the hut for each family.

The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.

The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.

(a) All the huts shall have walls of sun-dried or burnt-bricks laid in mud mortar or other suitable local materials as may be approved by Institute. In case of sun-dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutcha but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by Institute and the contractor shall ensure that throughout the period of their occupation, the roofs remain water-tight.

The contractor(s) shall provide each hut with proper ventilation.

All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.

There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of Institute. Back to back construction will be allowed.

Water Supply - The contractor(s) shall provide adequate supply of water for the use oflabourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also at his/their own cost make arrangements for laying pipe lines for water supply to his/their labour camp from the existing mains wherever available, and shall pay all fees and charges therefore.

The site selected for the camp shall be high ground, removed from jungle.

Disposal of Excreta - The contractor(s) shall make necessary arrangements for thedisposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee/authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/authority. The contractor shall provide one sweeper for every eight seats in case of dry system.

Drainage - The contractor(s) shall provide efficient arrangements for draining awaysullage water so as to keep the camp neat and tidy.

The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.

Sanitation - The contractor(s) shall make arrangements for conservancy andsanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.

CLAUSE 19I

Institute may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors' employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements. In respect of maintenance/repair or renovation works etc. where the labour have an easy access to the individual houses, the contractor shall issue identity cards to the labourers, whether temporary or permanent and he shall be responsible for any untoward action on the part of such labour.

CLAUSE 19J

It shall be the responsibility of the contractor to see that the building under construction is not occupied by anybody unauthorizedly during construction, and is handed over to Institute with vacant possession of complete building. If such building though completed is occupied illegally, then Institute shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay, a levy upto 5% of tendered value of work may be imposed by the Accepting Authority whose decision shall be final both with regard to the justification and quantum and be binding on the contractor.

However, the Accepting Authority, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

CLAUSE 19K

Employment of skilled/ semi-skilled workers

The contractor shall, at all stages of work, deploy skilled/semi skilled tradesmen who are qualified and possess certificate in particular trade from Industrial Training Institute/National Institute of construction Management and Research (NICMAR)/ National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Institute for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Institute. Failure on the part of contractor to obtain approval of Institute or

failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs. 100 per such tradesman per day. Decision of Institute as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding.

CLAUSE 19L

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

CLAUSE 20

Minimum Wages Act to be Complied with

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contact Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.

CLAUSE 21

Work not to be sublet. Action in case of insolvency

The contract shall not be assigned or sublet without the written approval of the Institute And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employ of Institute in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, Institute shall have power to adopt the course specified in Clause 3 hereof in the interest of Institute and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.

CLAUSE 22

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Institute without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

CLAUSE 23

Changes in firm's Constitution to be intimated

Where the contractor is a partnership firm, the previous approval in writing of Institute shall

be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu Undivided Family business concern, such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said Clause 21.

CLAUSE 24

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of Institute who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE 25

Settlement of Disputes & Arbitration

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by Institute on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 15 days request the Director, Institute in writing for written instruction or decision. Thereupon, the Director shall give his written instructions or decision within a period of one month from the receipt of the contractor's letter.

If the Director fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instructions or decision of the Director, the contractor may within 30 days from the receipt of the Director's decision, appeal before the Dispute Redressal Committee (DRC) along with a list of disputes with amounts claimed in respect of each such dispute and giving reference to the rejection of his disputes by the Director. The Dispute Redressal Committee (DRC) shall give his decision within a period of 90 days from the receipt of Contractor's appeal. The constitution of Dispute Redressal Committee (DRC) shall be as indicated in Schedule 'F'. If the Dispute Redressal Committee (DRC) fails to give his decision within the aforesaid period or any party is dissatisfied with the decision of Dispute Redressal Committee (DRC), then either party may within a period of 30 days from the receipt of the decision of Dispute Redressal Committee (DRC),

give notice to the Director for appointment of arbitrator on prescribed proforma as per Appendix XV, failing which, the said decision shall be final binding and conclusive and not referable to adjudication by the arbitrator.

Except where the decision has become final, binding and conclusive in terms of Sub Para above, disputes or difference shall be referred for adjudication through arbitration by a sole arbitrator appointed by the Director, Institute. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along with the notice for appointment of arbitrator and giving reference to the rejection by the Director of the appeal.

It is also a term of this contract that no person, other than a person appointed by Director of the Institute, as aforesaid, should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

It is also a term of this contract that if the contractor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 120 days of receiving the intimation from Institute that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the Institute shall be discharged and released of all liabilities under the contract in respect of these claims.

The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (Act 26 of 1996) or any statutory modifications or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

It is also a term of this contract that the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him and in all cases the arbitrator shall give reasons for the award.

It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid equally by both the parties. It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator

in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

CLAUSE 26

Contractor to Indemnify Institute against Patent Rights

The contractor shall fully indemnify and keep indemnified Institute against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against Institute in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom, provided that the contractor shall not be liable to indemnify the Institute if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by Institute in this behalf.

CLAUSE 27

Lump sum Provisions in Tender

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of Institute payable of measurement, Institute may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of Institute shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

CLAUSE 28

Action where no Specifications are specified

In the case of any class of work for which there is no such specifications as referred to in Clause 11, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications, if not available then as per District Specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of Institute.

CLAUSE 29

Witholding and lien in respect of sum 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, Institute 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, Institute 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 finalisation 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, Institute 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 with Institute of the Institute or any contracting person through Institute pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by Institute or Institute will be kept withheld or retained as such by Institute till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) or by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, Institute shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

Institute shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for Institute to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Institute to the contractor, without any interest thereon whatsoever.

Provided that the Institute shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Institute on the one hand and the contractor on the other under

any term of the contract permitting payment for work after assessment by the Institute.

CLAUSE 29 A

Lien in respect of claims in other Contracts

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by Institute or any other contracting person or persons through Institute against any claim of Institute or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with Institute or with such other person or persons.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by Institute will be kept withheld or retained as such by Institute or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE 30

Employment of Coal Mining or controlled area labour not permissible

The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a radius of 32 km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.

Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor. The contractor shall immediately remove any labourer who may be pointed out by the Institute as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to Government a sum calculated at the rate of Rs.10/- per day per labourer. The certificate of the Institute about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.

It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.

Explanation: - Controlled Area means the following areas:

Districts of Dhanbad, Hazaribagh, Jamtara - a Sub-Division under SanthalParganaCommissionery, Districts of Bankuara, Birbhum, Burdwan, District of Bilaspur.

Any other area which may be declared a Controlled Area by or with the approval of the

Central Government.

CLAUSE 31

Unfiltered water supply

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

(i) That the water used by the contractor(s) shall be fit for construction purposes to the satisfaction of Institute.

(ii) Institute shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of Institute, unsatisfactory.

The Contractor shall permit all Sub-Contractors to use his water storage and distribution facilities for their respective Work. Any additional or special arrangements needed by Sub-Contractors shall be made by them at their own cost.

Upon completion of the Works, the Contractor shall remove temporary storage tanks, piping network built or installed on the site so as to restore the site back to its original condition.

Insufficiency or non-availability of water shall not be cited by the Contractor as an excuse for delays, or deficiencies in the Work or a reason for claiming extra payments.

The Contractor shall, in all eventualities incorporate in his costing for making arrangements with necessary approval from relevant authority if any for the water requirements to be used for construction at his own cost at the time of tendering.

CLAUSE 31A

Departmental water supply if available

Water if available may be supplied to the contractor by the Institute subject to the following conditions:-

The water charges @ 1 % shall be recovered on gross amount of the work done.

The contractor(s) shall make his/their own arrangement of water connection and laying of pipelines from existing main of source of supply.

The Institute do not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the Institute water main so that the progress of his/their work is not held up for want of water. No claim of damage or refund of water charges will be entertained on account of such break down.

CLAUSE 32

Alternate water arrangements

Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the Institute, no charge shall be recovered from the contractor on that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. Institute shall be the final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.

The contractor shall be allowed to construct temporary wells in Institute land for taking water for construction purposes only after he has got permission of Institute in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines and shall be

required to maintain the facility at his cost. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

CLAUSE 33

Return of Surplus materials

Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of Institute either by issue from Institute's stocks or purchase made under orders or permits or licences issued by Institute, the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the Institute and return, if required by Institute, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as Institute shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of Institute shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to action for contravention of the terms of the licence or permit and/or for criminal breach of trust, be liable to Institute for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

CLAUSE 34

Hire of Plant & Machinery

The contractor shall arrange at his own expense all tools, plant, machinery and equipment (hereinafter referred to as T&P) required for execution of the work.

CLAUSE 35

Condition relating to use of asphaltic materials

The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.

(ii) The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecate it to Institute. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorized changes of specifications and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by Institute shall be made and the material returned to the contractors. Although the materials are hypothecated to Institute, the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of Institute in writing.

The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating to asphaltic work shall be refunded after the expiry of this period.

CLAUSE 36

Employment of Technical staff and employees

Contractors Superintendence, Supervision, Technical Staff & Employees

The contractor shall provide all necessary superintendence during execution of the work and all along thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to Institute, the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in Schedule 'F'. Institute shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Institute and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s). The principal technical

representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to Institute and/or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor. The principal technical representative and other technical representative(s) shall be actually available the decision of Institute as recorded in the site order book and measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical Principal technical representative and/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, Institute shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is/are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) alongwith every on-account bill/ final bill and shall produce evidence if at any time so required by Institute at site fully during all stages of execution of work, during recording/checking/test checking of measurements of works and whenever so required by Institute and shall also note down instructions conveyed by the Institute or his designated representative(s) in the site order book and shall affix his/their signature in token of noting down the instructions and in token of acceptance of measurements/checked measurements/test checked measurements. The representative(s) shall not look after any other work. Substitutes, duly approved by Institute of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If Institute, whose decision in this respect is final and binding on the contractor, is convinced that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the contractor as specified in Schedule 'F' and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) (in the form of copy of Form-16 or CPF deduction issued to the Engineers employed by him) along with every account bill/final bill and shall produce evidence if at any times so required by the Institute.

The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

Institute shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by Institute to be undesirable. Such person shall not be employed again at works site without the written permission of Institute and the persons so removed shall be replaced as soon as possible by the competent substitute.

CLAUSE 37

Levy/Taxes payable by Contractor

Sales Tax/VAT (except Service Tax), Building and other Construction Workers'

Welfare Cess or any other tax or Cess in respect of this contract shall be payable by the contractor and Institute shall not entertain any claim whatsoever in this respect. However, in respect of service tax, same shall be paid by the contractor to the concerned department on demand and it will be reimbursed to him by the Institute after satisfying that it has been actually and genuinely paid by the contractor.

The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar, etc. from local authorities.

If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the Government of India and does not any time become payable by the contractor to the State Government, Local authorities in respect of any material used by the contractor in the works, then in such a case, it shall be lawful to the Government of India and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.

CLAUSE 38

Conditions for reimbursement of levy/taxes if levied after receipt of tenders

All tendered rates shall be inclusive of all taxes and levies (except Service Tax) payable under respective statutes. However, if any further tax or levy or cess is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the contractor thereupon necessarily and properly pays such taxes/levies/cess, the contractor shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of the Director (whose decision shall be final and binding on the contractor) attributable to delay in execution of work within the control of the contractor. Similarly, reduction in the rate or removal of taxes shall be applicable as per statute to the contractor.

(ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Institute and shall also furnish such other information/document as Institute may require from time to time.

The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to Institute that the same is given pursuant

to this condition, together with all necessary information relating thereto.

CLAUSE 39

Termination of Contract on death of contractor

Without prejudice to any of the rights or remedies under this contract, if the contractor dies, the Director of Institute on behalf of Institute shall have the option of terminating the contract without compensation to the contractor. However, if the contractor is succeeded by his legal heir or legally assigned successors who are willing to continue the work under the same terms and conditions as in the original contract, Institute shall have the option to continue the work with such heirs or successors with the same obligations to the heirs or successors as with the original contractor. The decision of Institute in this regard shall be final and binding.

CLAUSE 40

If relative working in Institute then the contractor not allowed to tender

The contractor shall not be permitted to tender for works, if any of his near relative(s) is in the employment of the Institute or its agent/representative. He shall also intimate the names of persons who are working with him or are subsequently employed by him and who are near relatives to any of the employee of Institute. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Institute. If however the contractor is registered in any other department, he shall be debarred from tendering in the Institute for any breach of this condition.

NOTE: By the term "near relatives" is meant wife, husband, parents and grand parents, children and grandchildren, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

CLAUSE 41

No Gazetted Engineer to work as contractor within one year of retirement

No engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an engineering department of the Government of India or Govt of Haryana shall work as a contractor or employee of a contractor for a period of one year after his retirement from government service without the previous permission of respective Government in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Government as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

CLAUSE 42

Return of material & recovery for excess material used

After completion of the work and also at any intermediate stage in the event of

non-reconciliation of materials issued, consumed and in balance - (see Clause 10), theoretical quantity of materials issued by the Institute for use in the work shall be calculated on the basis and method given hereunder:-

Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the Schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by Institute.

Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Institute, including authorized lappages, chairs etc. plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and category wise separately.

Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.

For any other material as per actual requirements.

Over the theoretical quantities of materials so computed a variation shall be allowed as specified in Schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of Institute within fifteen days of the issue of written notice by Institute to this effect shall be recovered at the rates specified in Schedule 'F', without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Institute in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F', shall be final & binding on the contractor. For non-scheduled items, the decision of Institute regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.

The said action under this clause is without prejudice to the right of the Institute to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

CLAUSE 43

Compensation during warlike situations

The work (whether fully constructed or not) and all materials, machines, tools and

plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to Institute and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by Institute to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of clearing the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by Institute, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Director, Institute. The contractor shall be paid for the damages/destruction suffered and for restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of Institute regarding the quality and quantity of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or Institute (b) for
any material etc. not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.
In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by the Director.

CLAUSE 44

Apprentices Act provisions to be complied with

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued thereunder from time to time. If he fails to do so, his failure will be a breach of the contract and the Director, Institute may, in his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CLAUSE 45

Release of Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete the contractor shall apply for the clearance certificate to the Labour Officer under intimation to Institute. Institute, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the contractor in

respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

SAFETY CODES

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than ¼ to 1(¼ horizontal and 1 vertical.)

2. Scaffolding of staging more than 3.6 m (12ft.) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends there of with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the

stairway is more than 3.6 m (12ft.) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.

Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm. (3ft.)

Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. (11½") for ladder upto and including 3 m. (10 ft.) in length. For longer ladders, this width should be increased at least ¼" for each additional 30 cm. (1 foot) of length. Uniform step spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit; action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by any such person.

a. Excavation and Trenching - All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100 ft.) in length or fraction thereof, Ladder shall extend from bottom of the trench to at least 90 cm. (3ft.) above the surface of the ground. The side of the trenches which are 1.5 m. (5ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m. (5ft.) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances, undermining or undercutting shall be done.

Safety Measures for digging bore holes:

If the bore well is successful, it should be safely capped to avoid caving and collapse of the bore well. The failed and the abandoned ones should be completely refilled to avoid caving and collapse;

During drilling, sign boards should be erected near the site with the address of the drilling contractor and the Institute of the work;

Suitable fencing should be erected around the well during the drilling and after the installation of the rig on the point of drilling, flags shall be put 50 m alround the point of drilling to avoid entry of people;

After drilling the borewell, a cement platform (0.50 m x 0.50 m x 1.20 m) 0.60 m above ground level and 0.60 m below ground level should be constructed around the well casing;

After the completion of the borewell, the contractor should cap the bore well properly by welding steel plate, cover the bore well with the drilled wet soil and fix thorny shrubs over the soil. This should be done even while repairing the pump;

After the borewell is drilled the entire site should be brought to the ground level.

Demolition - Before any demolition work is commenced and also during the progress of the work,

All roads and open areas adjacent to the work site shall either be closed or suitably protected.

No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.

All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

All necessary personal safety equipment as considered adequate by Institute should be kept available for the use of the person employed on the site and maintained in a

condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned:- The following safety equipment shall invariably be provided.

Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.

Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.

Those engaged in welding works shall be provided with welder's protective eye-shields.

Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated atleast for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measure are adhered to :-

Entry for workers into the line shall not be allowed except under supervision of the JE or any other higher officer.

b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.

Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.

Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.

Safety belt with rope should be provided to the workers. While working inside the manholes, such rope should be handled by two men standing outside to enable him to be pulled out during emergency.

The area should be barricaded or cordoned of by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.

No smoking or open flames shall be allowed near the blocked manhole being cleaned.

The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.

Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. Institute may decide the time up to which a worker may be allowed to work continuously inside the manhole.

Gas masks with Oxygen Cylinder should be kept at site for use in emergency.

Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 metres away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.

The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.

The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.

Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.

If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.

The extent to which these precautions are to be taken depend on individual situation but the decision of Institute regarding the steps to be taken in this regard in an individual case will be final.

vi) TheContractorshall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-

No paint containing lead or lead products shall be used except in the form of paste or ready made paint.

Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.

Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.

The Contractor shall not employ women and men below the age of 18 years on the work with product containing lead in any form, wherever men above the age of 18 years are employed on the work with product containing lead, the following principles must be observed for such use :

White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.

Measures shall be taken, wherever required in order to prevent danger arising from

the application of a paint in the form of spray.

Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.

Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

Overall shall be worn by working painters during the whole of working period.

Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.

Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed.

Institute may require, when necessary medical examination of workers.

Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.

When the work is done near any place where there is risk of drowning, all necessary equipment's should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.

Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions :-

(a) These shall be of good mechanical construction, sound m aterials and adequate.

Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.

In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

(iv) In case of departmental machines, the safe working load shall be notified by the Electrical Institute. As regards contractor's machines the contractors shall notify the safe working load of the machine to Institute whenever he

brings any machinery to site of work and get it verified by the Electrical Engineer concerned.

Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce to the minim um the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary
should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.

These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.

To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Institute of the department or their representatives.

Notwithstanding the above clauses from (1) to (15), there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

MODEL RULES TO BE FOLLOWED BY CONTRACTORS FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS OF WORKERS EMPLOYED

1. APPLICATION

These rules shall apply to all buildings and construction works in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period during which the contract work is in progress.

FIRST-AID FACILITIES

At every work place, there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.

The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain

For work places in which the number of contract labour employed does not exceed 50-the following equipment:-

Each first-aid box shall contain the following equipment's :-

6 small sterilized dressings.
3 medium size sterilized dressings.
3 large size sterilized dressings.
3 large sterilized burn dressings.
1 (30 ml.) bottle containing a two per cent alcoholic solution of iodine.

1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
1 snakebite lancet.
1 (30 gms.) bottle of potassium permanganate crystals.
1 pair scissors.
1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
1 bottle containing 100 tablets (each of 5 gms.) of aspirin.
Ointment for burns.
A bottle of suitable surgical antiseptic solution.

For work places in which the number of contract labour exceed 50. Each first-aid box shall contain the following equipment's.

12 small sterilized dressings.
6 medium size sterilized dressings.
6 large size sterilized dressings.
6 large size sterilized burn dressings.
6 (15 gms.) packets sterilized cotton wool.
1 (60 ml.) bottle containing a two per cent alcoholic solution iodine.
1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
1 roll of adhesive plaster.
1 snake bite lancet.
1 (30 gms.) bottle of potassium permanganate crystals.
1 pair scissors.
1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institutes/Government of India.
A bottle containing 100 tablets (each of 5 gms.) of aspirin.
Ointment for burns.
A bottle of suitable surgical antiseptic solution.

Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.

Nothing except the prescribed contents shall be kept in the First-aid box.

The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.

A person in charge of the First-aid box shall be a person trained in First-aid treatment in the work places where the number of contract labour employed is 150 or more.

In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works. First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.

Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

DRINKING WATER

In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for

drinking.

Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.

Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.

A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

WASHING FACILITIES

In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.

Separate and adequate cleaning facilities shall be provided for the use of male and female workers.

Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

LATRINES AND URINALS

Latrines shall be provided in every work place on the following scale namely :-

Where female are employed, there shall be at least one latrine for every 25 females.

Where males are employed, there shall be at least one latrine for every 25 males.

Provided that, where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100, and one for every 50 thereafter.

Every latrine shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings.

(iii) Construction of latrines: The inside walls shall be constructed of masonry or some suitable heat-resisting nonabsorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.

(a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers “For Men only” or “For Women Only” as the case may be.

The notice shall also bear the figure of a man or of a woman, as the case may be.

There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time, provided that where the number of

male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.

(a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.

Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.

Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.

Disposal of excreta :- Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).

The contractor shall at his own expense, carry out all instructions issued to him by Institute to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 metres (10 ft.) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sq.m. (6 sqft) per head.

CRECHES

At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications as per clause 19H (ii) a, b & c.

The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.

The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.

The contractor shall provide one ayaa to look after the children in the creche when the number of women workers does not exceed 50 and two when the number of women workers exceed 50.

The use of the rooms earmarked as creches shall be restricted to children, their attendants and mothers of the children.

CANTEENS

In every work place where the work regarding the employment of contract labour is likely to continue for six months and where in contract labour numbering one hundred or more is ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.

The canteen shall be maintained by the contractor in an efficient manner.

The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.

The canteen shall be sufficiently lighted at all times w hen any person has access to it.

The floor shall be made of smooth and impervious materials and inside walls shall be lime-washed or colour washed at least once in each year.

Provided that the inside walls of the kitchen shall be lime-washed every four months.

The premises of the canteen shall be maintained in a clean and sanitary condition.

Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.

Suitable arrangements shall be made for the collection and disposal of garbage.

The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.

The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square metre (10 sqft) per diner to be accommodated as prescribed in sub-Rule 9.

(xi) (a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number.

Washing places for women shall be separate and screened to secure privacy.

Sufficient tables stools, chair or benches shall be available for the number of diners to be accommodated as prescribed in sub-Rule 9.

(a) 1. There shall be provided and maintained sufficient utensils crockery,

furniture and any other equipment's necessary for the efficient running of the canteen.

The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.

1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.

A service counter, if provided, shall have top of smooth and impervious material.

Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment's.

The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.

The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit, No loss' and shall be conspicuously displayed in the canteen.

In arriving at the price of foodstuffs, and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely:-

The rent of land and building.

The depreciation and maintenance charges for the building and equipment's provided for the canteen.

The cost of purchase, repairs and replacement of equipment's including furniture, crockery, cutlery and utensils.

The water charges and other charges incurred for lighting and ventilation.

The interest and amounts spent on the provision and maintenance of equipments provided for the canteen.

The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

ANTI-MALARIAL PRECAUTIONS

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by Institute including the filling up of any borrow pits which may have been dug by him.

The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

AMENDMENTS

Institute, from time to time, add to or amend these rules and issue directions - it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

CONTRACTOR'S LABOUR REGULATIONS

SHORT TITLE

These regulations may be called the Contractors Labour Regulations.

DEFINITIONS

Workman means any person employed by contractor directly or indirectly

through a subcontractor to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person:-

Who is employed mainly in a managerial or administrative capacity : or

Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature: or

Who is an out worker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.

No person below the age of 14 years shall be employed to act as a workman.

Fair Wages means wages whether for time or piece work fixed and notified underthe provisions of the Minimum Wages Act from time to time.

Contractors shall include every person who undertakes to produce a givenresult other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.

Wages shall have the same meaning as defined in the Payment of Wages Act.

i)Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.

When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him at double the ordinary rate of wages.

iii) a) Every worker shall be given a weekly holiday normally on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960

as amended from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.

Where the minimum wages prescribed by the Government under the Minimum Wages Act are not inclusive of the w ages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

Where a contractor is permitted by Institute to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

DISPLAY OF NOTICE REGARDING WAGES ETC.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wage are earned, wages periods, dates of payments of wages and other relevant information as per Appendix 'III'.

PAYMENT OF WAGES

The contractor shall fix wage periods in respect of which wages shall be payable. No wage period shall exceed one month.

The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.

Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.

All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.

Wages due to every worker shall be paid to him direct by contractor through Bank or ECS or online transfer to his bank account.

All wages shall be paid through Bank or ECS or online transfer.

Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf

or permissible under the Payment of Wages Act 1956.

ix) A notice showing the wages period and the place and time of disbursement of w ages shall be displayed at the place of work and a copy sent by the contractor to Institute under acknowledgment.

It shall be the duty of the contractor to ensure the disbursement of wages through bank account of labour.

The contractor shall obtain from the Junior Engineer or any other authorized representative of Institute as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form:-

"Certified that the amount shown in column No .....has been paid to the workman concerned through bank account of labour on ..... at ..... "

FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

The wages of a worker shall be paid to him without any deduction of any kind except the following :-

Fines

Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he w as absent.

Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.

Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.

Any other deduction which the Central Government may from time to time allow.

No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note :- An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-X

No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his w ages until the worker has been given an opportunity of showing cause against such fines or deductions.

(iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.

No fine imposed on any worker shall be recovered from him by instalment, or after the expiry of sixty days from the date on which it was imposed.

Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

LABOUR RECORDS

(i) The contractor shall maintain a Register of persons employed on work on contract in Form XIII of the CL (R&A) Central Rules 1971 (Appendix IV)

The contractor shall maintain a Muster Roll register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (Appendix V).

(iii) The contractor shall maintain a Wage Register in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R&A) Rules 1971 (Appendix VI).

Register of accident - The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:

Full particulars of the labourers who met with accident.
Rate of Wages.
Sex
Age
Nature of accident and cause of accident.

Time and date of accident.
Date and time when admitted in Hospital,
Date of discharge from the Hospital.
Period of treatment and result of treatment.
Percentage of loss of earning capacity and disability as assessed by Medical Officer.
Claim required to be paid under Workmen's Compensation Act.
Date of payment of compensation.
Amount paid with details of the person to whom the same was paid.
Authority by whom the compensation was assessed.
Remarks

(v) The contractor shall maintain a Register of Fines in the Form XII of the CL (R&A) Rules 1971 (Appendix-XI)

The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed (Appendix-X).

The contractor shall maintain a Register of deductions for damage or loss in Form XX of the CL (R&A) Rules 1971 (Appendix-XII)

(vii) The contractor shall maintain a Register of Advances in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIII)

The contractor shall maintain a Register of Overtime in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIV)

ATTENDANCE CARD-CUM-WAGE SLIP

The contractor shall issue an Attendance card-cum-wage slip to each workman employed by him in the specimen form (Appendix-VII)

The card shall be valid for each wage period.

The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.

The card shall remain in possession of the worker during the wage period under reference.

The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.

The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

EMPLOYMENT CARD

The contractor shall issue an Employment Card in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (Appendix-VIII).

SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a Service certificate in Form XV of the CL (R&A) Central Rules 1971 (Appendix-IX)

PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by Institute or Labour Officer or any other officers authorized by the Ministry of Urban Development in this behalf.

POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY

The Labour Officer or any person authorized by Central Government on their behalf shall have power to make enquires with a view to ascertaining and enforcing due and proper observance of Fair Wage Clauses and the Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

REPORT OF LABOUR OFFICER

The Labour Officer or other persons authorized as aforesaid shall submit a report of result of his investigation or enquiry to the Institute indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment to labourers will be made by Institute after his decision on such appeal.

Institute shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer.

PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

A workman shall be entitled to be represented in any investigation or enquiry under these regulations by:-

An officer of a registered trade union of which he is a member.

An officer of a federation of trade unions to which the trade union referred to in clause (a) is affiliated.

Where the employer is not a member of any registered trade union, by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.

An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :-

An officer of an association of employers of which he is a member.

An officer of a federation of associations of employers to which association referred to in clause (a) is affiliated.

Where the employers is not a member of any association of employers, by an officer of association of employer connected with the industry in which the employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.

No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person, authorized by the Central Government on his behalf.

SUBMISSIONS OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application/Interpretation or effect of those regulations the decision of the Superintending Engineer concerned shall be final.

Appendix-'I'

REGISTER OF MEDICAL BENEFITS

Name and address of the contractor …….
Name and location of the work …….

Name of the employee	Father's/Husband's Name	Nature of Employment	Period of actual employment	Date on which notice of confinement given
1	2	3	4	5

Date on which maternity leave commenced and ended

Date of delivery / miscarriage	In case of delivery		In case of miscarriage	
	Commenced	Ended	Commenced	Ended
6	7	8	9	10

Leave pay paid to the employee

In case of delivery		In case of miscarriage		Remarks
Rate of leave pay	Amount paid	Rate of leave pay	Amount Paid	
11	12	13	14	15

Appendix 'II'

SPECIMEN FORM OF THE REGISTER, REGARDING MATERNITY BENEFIT ADMISSIBLE TO THE CONTRACTOR'S LABOUR

Name and address of the contractor……..

Name and location of the work ……

Name of the woman and her husband's name.

Designation

Date of appointment.

Date with months and years in which she is employed.

Date of discharged/dismissal, if any.

Date of production of certificates in respect of pregnancy.

Date on which the woman informs about the expected delivery.

Date of delivery/miscarriage/death.

Date of production of certificate in respect of delivery/miscarriage.

Date with the amount of maternity/death benefit paid in advance of expected delivery.

Date with amount of subsequent payment of maternity benefit.

Name of the person nominated by the woman to receive the payment of the maternity benefit after her death.

If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment.

Signature of the contractor authenticating entries in the register.

Remarks column for the use of Inspecting Officer.

Appendix 'III'

Labour Board

Name of work ..……..……

Name of Contractor ..……

Address of Contractor ……..……

Name of Labour Enforcement Officer ……

Address of Labour Enforcement Officer ……

Sl. No.	Category	Minimum Wage fixed	Actual Wage paid	Number present	Remarks

Weekly holiday ..……

Wage period ……..……..

Date of payment of wages ……..…….

Working hours ……..……..

Rest interval ……..……..

Appendix 'IV' FORM
XIII (See Rule 75)
Register of workmen Employed by Contractor

Name and address of contractor ……
Name and address of establishment under which contact is carried on ……
Nature and location of work ……
Name and address of Principal Employer ……..

Sl. No.	Name and Surname of workman	Age and Sex	Father's/ Husband's Name	Nature of employment/ Designation	Permanent home address of the workman (Village and Tehsil, Taluk and District)	Local Address	Date of commencement of employment	Signature or Thumb impression of the workman	Date of termination of employment	Reasons for termination	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Appendix 'V'

FORM XVI (See Rule 78(2)(a)
Muster Roll

Name and address of contractor ……
Name and address of establishment under which contact is carried on ……
Nature and location of work ……
Name and address of Principal Employer …….. for the month of fortnight ……..

Sl. No.	Name of workman	Sex	Father's / Husband's Name	Dates					Remarks
1	2	3	4	5					6
				1	2	3	4	5	

Appendix 'VI'

FORM XVII (See Rule 78(2)(a)

Register of Wages

Name and address of contractor ……

Name and address of establishment under which contact is carried on ……

Nature and location of work ……

Name and address of Principal Employer …….. Wages Period Monthly / Fortnight ……..

Sl. No.	Name of workman	Serial no. in theregisterofworkman	Designation/natureofworkdone	No. of days worked	Units of work done	Daily rate of wages/piecerate	Amount of wages earned					Deductions if any(indicatenature)	Net amount paid	Signature/thumbimpressionofthe workman	Initial of contractororitsrepresentative
							Basic Wages	DearnessAllowances	Overtime	Other cashpayments(indicatenature)	Total				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Appendix 'VII'

WAGE CARD

Wage Card no. ……..

Name and Address of the Contractor …… Date of Issue ……..

Name and location of work …… Designation ……

Name of workman …… Month / Fortnight ……..

Rate of wages ……

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Morning																														Rate
Evening																														Amount
Initial																														

…… the sum of Rs. ……..on account of my wages

Received from

The Wage Card is valid for one month from the date of issue **Signature**

Appendix 'VII'

WAGES SLIP

Name and Address of contractor ……

Name and Father's/husband's name of workman ……..

Nature and location of work ……...

For the Week/Fortnight/Month ending …….

No. of days worked ……..
No. of units worked in case of piece rate workers……
Rate of daily wages/piece rate ……
Amount of overtime wages……..……..
Gross wages payable…….…..……..
Deduction, if any……..…….
Net amount of wages paid ……..…..…….

Initials of the contractor or his representative

Appendix 'VIII'

Form-XIV

EMPLOYMENT CARD

Name and Address of contractor …..…….
Name and address of establishment under which contract is carried on ……..……
Name of work and location of work ..…….……..
Name and address of Principal Employer ……..……..……

1. Name of the workman ..... ……..……..
2. Sl. No. in the register of workman employed ……..... ……..
3. Nature of employment/designation ..... …….
4. Wage rate (with particulars of unit in case of piece work) …….....
5. Wage period ……..... ……..……..
6. Tenure of employment ……..... ……..
7. Remarks ……..... ……..

Signature of contractor

Appendix 'IX'

FORM XV (See Rule 77)
Service Certificate

Name and Address of contractor …..…….
Name of work and location of work ..…….……..
Name and address of workman…… ……...……..……
Age or Date of Birth ……
Identification Marks ……
Father's / Husband's Name ……
Name and address of establishment in under which contract is carried on ……,……
Name and address of the Principal Employer ……

Sl. No.	Total period for which employed		Nature of work done	Rate of wages (with particulars of unit in case of piece work)	Remarks
	From	To			
1	2	3	4	5	6

Appendix 'X'

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

In accordance with rule 7(v) of the Contractor's Labour Regulations to be displayed prominently at the site of work both in English and local Language.

Willful insubordination or disobedience, whether alone or in combination with other.

Theft fraud or dishonesty in connection with the contractors or property of Institute.

Taking or giving bribes or any illegal gratifications.

Habitual late attendance.

Drunkenness lighting, riotous or disorderly or indifferent behaviour.

Habitual negligence.

Smoking near or around the area where combustible or other materials are locked.

Habitual indiscipline.

Causing damage to work in the progress or to property of Institute or of the contractor.

Sleeping on duty.

Malingering or slowing down work.

Giving of false information regarding name, age father's name, etc,.

Habitual loss of w age cards supplied by the employers.

Unauthorised use of employer's property.

Bad workmanship in construction and maintenance by skilled workers which is not approved by the Department and for which the contractors are compelled to undertake rectifications.

Making false complaints and/or misleading statements.

Engaging on trade within the premises of the establishments.

Any unauthorised divulgence of business affairs of the employees.

Collection or canvassing for the collection of any money authorised by the employer.

Holding meeting inside the premises without previous sanction of the employers.

Threatening or intimidating any workman or employer during the working hours within the premises.

Appendix 'XI'

FORM XII (See Rule 78(2)(d)
Register of Fines

Name and Address of contractor …..……..…….
Name and address of establishment in under which contract is carried on ……,……
Nature and location of work ……
Name and address of Principal Employer ……..……

Sl. No.	Name ofworkman	Father's/Husband'sname	Designation/Natureofemployment	Act Omissionforwhichfineimposed	Date of Offence	Whetherworkmanshowedcauseagainstfine	Name of personinwhasepresenceemployee'sexplanationwashoard	Wage periodandwagespayable	Amount of fineimposed	Date on whichfinerealized	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Appendix 'XII'

FORM XX (See Rule 78(2)(d)

Register of Deduction for Damage or Loss

Name and Address of contractor …..……..…….

Name and address of establishment in under which contract is carried on ……,……

Nature and location of work ……

Name and address of Principal Employer ……...……

Sl. No.	Name ofworkman	Father's/Husband'sname	Designation/Natureofemployment	Particulars ofdamageorloss	Date of damageorloss	Whetherworkmanshowedcauseagainstdeduction	Name of personinwhosepresence employee 'sexplanation was	Amount ofdeductionimposed	No. ofinstallments	Date of recovery		Remarks
										Firstinstall ment	Lastinstallm ent	
1	2	3	4	5	6	7	8	9	10	11	12	13

Appendix 'XIII'

FORM XXII (See Rule 78(2)(d)
Register of Advances

Name and Address of contractor …..……..…….
Name and address of establishment in under which contract is carried on ……,……
Nature and location of work ……
Name and address of Principal Employer ……...……

S. No.	Name of workman	Father's/ Husband's name	Designation/nature ofemployment	Wage period andwagespayable	Date and amountofadvancegiven	Purpose(s) forwhichadvancemade	Number ofinstallmentsbywhichadvancetoberepaid	Date and amountofeachinstallmentrepaid	Date and whichlastinstallmentwasrepaid	Remarks
1	2	3	4	5	6	7	8	9	10	11

Appendix 'XIV'

FORM XXIII (See Rule 78(2)(e)
Register of Overtime

Name and Address of contractor …..……..…….
Name and address of establishment in under which contract is carried on ……,……
Nature and location of work ……
Name and address of Principal Employer ……...……

Sl. No.	Name of workman	Father's / Husband'sname	Sex	Designation / nature of employment	Date on whichovertimeworked	Total overtimeworkedonproduction in casesofpiecerated	Normal rate ofwages	Overtime rate of wages	Overtime earning	Rate on which overtime paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Appendix XV

Notice for appointment of Arbitrator
[Refer Clause 25]

To
Director,
AIIMS PATNA
PATNA

Dear Sir,

In terms of clause 25 of the agreement, particulars of which are given below, I/we hereby give notice to you to appoint an arbitrator for settlement of disputes mentioned below:

Name of applicant
Whether applicant is Individual/Prop. Firm/Partnership Firm/Ltd. Co.
Full address of the applicant
Name of the work and contract number in which arbitration sought
Contract/Agreement No
Contract amount in the work
Date of contract
Date of contract Date of initiation of work
Stipulated date of completion of work
Actual date of completion of work (if completed)
Total number of claims made
Total amount claimed
Date of intimation of final bill (if work is completed)
Date of payment of final bill (if work is completed)
Amount of final bill (if work is completed)
Date of request made to Director for decision
Date of receipt of Director's decision

Specimen signatures of the applicant (only the person/authority who signed the contract should sign)

I/We certify that the information given above is true to the best of my/our knowledge. I/We enclose following documents.

Statement of claims with amount of claims.

Yours faithfully,

(Signatures)

FORM OF PERFORMANCE SECURITY (GUARANTEE)
BANK GUARANTEE BOND

In consideration of the Director, AIIMS PATNA (hereinafter called "The Institute") having offered to accept the terms and conditions of the proposed agreement between…….and …… (hereinafter called "the said Contractor(s)") for the work…… (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. ……. (Rupees …… only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

We, …….. (hereinafter referred to as "the Bank") hereby undertake to pay to the Institute an amount not exceeding Rs. …….. (Rupees……. Only) on demand by the Institute.

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

We, the said bank further undertake to pay the Institute any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment Thereunder and the Contractor(s) shall have no claim against us for making such payment.

We, ……. (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Institute under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Institute on behalf of the Institute certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

We, ……. (indicate the name of the Bank) further agree with

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

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

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

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

Dated the ……..day of ……for…….(indicate the name of the Bank)

SCHEDULE - B
SPECIAL CONDITIONS

GENERAL

1.1 The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc. constraints put by local regulations, if any, weather conditions at site, or any other circumstances which may affect or influence their tenders. The site shall be made available for work in parts as finishing work of other area on every floor is in progress by the other agency. No claims, whatsoever, shall be entertained at a later date for any errors found, on plea that the information supplied by the Department in the tender is insufficient or is at variance with the actual site conditions.

1.2 The Contractor shall, if required by him, before submission of the tender, inspect the drawings in the Office of the Director, AIIMS PATNA.. The Department shall not bear any responsibility for the lack of knowledge and also the consequences, thereof to the Contractor. The information and data shown in the drawings and mentioned in the tender documents have been furnished, in good faith, for general information and guidance only. The Engineer-in-Charge, in no case, shall be held responsible for the accuracy thereof and/or interpretations or conclusions drawn there from by the Contractor and all consequences shall be borne by the Contractor. No claim, whatsoever, shall be entertained from the Contractor, if the data or information furnished in tender document is different or in-correct otherwise or actual working drawings are at variance with the drawings available for inspection or attached to the tender documents. It is presumed that the Contractor shall satisfy himself for all possible contingencies, incidental charges, wastages, bottlenecks etc. likely during execution of work and acts of coordination, which may be required between different agencies. Nothing extra shall be payable on this account.

1.3 The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred there from may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respect. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-Charge. Nothing extra shall be payable on this account.

1.4 The work covered under the scope of this tender document is to be executed in the building already under construction by some other contractor and accordingly, the

Successful bidder will have to ensure proper and effective coordination with the construction agency already working at site. In execution of the present scope of the work. The successful bidder has plan his activities in a manner so as not to cause any disturbance and / or any hindrance to the work being executed and also not to cause any damage to the work executed by the other construction agency. Also, there is no open space available within the plot of land of building for stacking of material or any other required establishment of the contractor. Limited space in the area of the building could be made available if so desired by the contractor, for which the contractor shall submit his request along with detailed sketch drawing clearly showing area required with the purpose of use etc. it is not obligatory on the part of the Institute to provide any space for any such activities other than the areas for execution of the work as per scope of the work covered under this bid document. Decision of the Engineer-in-charge in this regard shall be final and binds on the contractor.

1.5 The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident of labours/ contractual staffs the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.

1.6 The work shall generally be carried out in accordance with the "CPWD Specifications 2009 Vol. I & II" with up to date correction slips, additional/Particular Specifications, architectural/Structural drawings and as per instructions of Engineer-in-Charge. Any additional item of the work, if taken up subsequently, shall also confirm to the relevant CPWD specifications as mentioned above.

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

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

Description of items as given in Schedule of quantities
Particular specifications
Special conditions

Tender drawings attached

(VI) CPWD Specifications including correction slips issued up to previous day of the last date of Uploading/submission of tender.
(VII) General Conditions of Contract for CPWD works including correction slips issued up to previous day of last date of uploading/submission of tender.
(VIII) Indian Standards Specifications of B.I.S.
(IX) ASTM, BS, or other foreign origin code mentioned in tender document. Manufacturer's specifications and as decided by the Engineer-in-Charge.
(XI) Sound Engineering practices or well established local construction practices.

1.9 The works to be governed by this contract shall cover manufacturing, supply, delivery and transportation up to destination, safe custody at site, insurance, installation

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

Preparation of detailed SHOP drawings - Contractor shall provide all the shop drawings or layout drawings for all the coordinated services before starting any work or placing any order of any of the services etc. These shop drawings/layout drawings shall be got approved from Engineer-in-charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along with material sample for approval of Engineer-in-Charge prior to delivery of material at site

Preparation of AS BUILT drawings wherever applicable.

Obtaining of Statutory permissions where-ever applicable and required.

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

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

1.10 The work shall be carried out in accordance with the approved architectural drawings and building services drawings to be issued from time to time, by the Engineer-in-Charge. Before commencement of any item of work the contractor shall correlate all the relevant architectural and structural drawings, nomenclature of items and specifications etc. issued for the work and satisfy himself that the information available from there is complete and unambiguous. The figure and written dimension of the drawings shall be superseding the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-in- charge before execution of the work. The contractor alone shall be responsible for any loss or damage occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim whatsoever shall be entertained by the department on this account.

1.11 Unless otherwise provided in the Schedule of quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account.

1.12 The Contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place.

1.13 Wherever required, The contractor shall install the items through the manufacturer or their authorized dealer of approved make as per direction of Engineer-in-charge.

1.14 The Contractor shall bear all incidental charges for cartage, storage and safe custody of materials, if any, issued by Institute as well as to those materials also arranged by the contractor.

1.15 The contractor shall give performance test of the entire installation(s) as per the specifications in the presence of the Engineer-in-charge or his authorized representative before the work is finally accepted and nothing extra what-so-ever shall be payable to the contractor for such test.

1.16 PREVENTION OF NUISANCE AND POLUTION CONTROL

The contractor shall take all necessary precautions to prevent any nuisance or inconvenience from pollutants like smoke, dust, noise. The contractor shall use such methodology and equipment so as to cause minimum environmental pollution of any kind. The contractor shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to existing buildings and its services, roads, paths, cross drainage works or public or private property whatsoever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor, without any reservation, entirely to the satisfaction of the Engineer-in-Charge.

1.17 Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the nearby occupants/users of building(s)/ other agencies if any.

1.18 SECURITY AND TRAFFIC ARRANGEMENTS

In the event of any restrictions being imposed by the Security agency ,AIIMS Patna, Traffic or any other authority having jurisdiction in the area on the working or movement of labour /material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required.

1.19 If as per the rules of the local authority, the huts for labour are not to be erected at the site of work by the contractors, the contractors are required to provide such accommodation as is acceptable to local bodies and nothing extra shall be paid on this account. No accommodation is available at the site of work. The labour huts shall not be erected on the plot and the Contractor shall make his own arrangements to provide such accommodation as per the rules of the local bodies. He shall make his own arrangements for stores, field office etc. Before tendering, he shall visit the site and assess the manner in which he is able to arrange the above facilities. The Engineer-in-Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.

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

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

1.22 All materials obtained from contractor shall be got checked by the representative of Engineer-in-Charge on receipt of the same at site before use.

1.23 The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including all equipment's, services provided by him against pilferage and breakage during the period of Installations and thereafter till the work is physically handed over to Institute. No extra payment shall be made on this account and no claim shall be admissible on this account.

1.24 The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.

1.25 INTEGRATED SERVICE DRAWINGS

Before taking up the work, the contractor shall be provided with integrated drawings for various civil services showing details of lay out plan including sectional elevations and contractor shall plan and mobilize his resources as per the Integrated drawings and as per the site conditions to facilitate convenient execution, installation as well as maintenance of these services. Nothing extra shall be payable on this account.

1.26 TOOLS AND PLANTS

The bidder should have own constructions equipment required for the proper and timely execution of the work. Nothing extra shall be paid on this account. No tools and plants including any special T&P etc. shall be supplied by the Department and the Contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shall be entertained on this account.

1.27 SCAFFOLDING

Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the Contractor. It shall be provided strictly with steel double

scaffolding system, suitably braced for stability, with all the accessories, gangways, etc. with adjustable suitable working platforms to access the areas with ease for working and inspection. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. Nothing extra shall be payable on this account. It shall be ensured that no damage is caused to any structure due to the scaffolding.

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

1.29 RESPONSIBILITY

The Contractor shall protect and indemnify the Institute and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts.

The fee payable to statutory authorities for obtaining the various permanent service connections and Building Use Certificate for the building shall be borne by the Institute.

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

1.30 SUPERVISION OF WORK

The Contractor shall depute Site Engineer & skilled workers as required for the work. He shall submit organization chart along with details of Engineers and supervisory staff. It shall be ensured that all decision making powers shall be available to the representatives of the Contractor at site of work itself to avoid any likely delays on this account. The Contractor shall also furnish list of persons for

specialized works to be executed for various items of work. The Contractor shall identify and deploy key persons having qualifications and experience in the similar and other major works, as per the field of their expertise. If during the course of execution of work, the Engineer-in-Charge is of the opinion that the deployed staff is not sufficient or not well experienced; the Contractor shall deploy more staff or better-experienced staff at site to complete the work with quality and in stipulated time limit. Principle Technical representative of the Contractor having minimum experience in similar nature of work as mentioned in the clause 36 of the General Conditions of the Contract, shall always be available at the site during the actual execution of the work. The recovery shall be made from the contractor bill in the event of not fulfilling this provision as mentioned in clause 36 of schedule 'F'.

1.31 RATES

The rates quoted by the bidders', shall be firm and inclusive of all taxes and levies (including works contract tax but excluding service tax).

No foreign exchange shall be made available by the Department for importing (purchase) of equipment, plants, machinery, materials of any kind or any other items required to be carried out during execution of the work. No delay and no claim of any kind shall be entertained from the Contractor, on account of variation in the foreign exchange rate.

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

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

The bidder has to ensure the minimum basic rate of material mentioned in the Schedules of Quantities of items of approved sample and same material shall be supplied and fixed at site. In case minimum basic rate of material is minus/ Less than the minimum basic rate of material, the difference shall be recovered after adding 1% water charge and 15% contractor profit. If in the opinion of Institute, a material with basic rate in excess of minimum rate mentioned in the Schedule of Quantities is to be used, the excess after adding 1% water charge and 15% contractor profit shall be paid to the Contractor.

1.32 SAFETY PRACTICES

WARNING/ CAUTION BOARDS: All temporary warning / caution boards / glow signage display such as "Construction Work in Progress", "Keep Away", "No Parking", Diversions & protective Barricades etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed

by the Engineer-in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by the Contractor after the completion of work, only after approval of the Engineer – in – Charge. Nothing extra shall be payable on this account.

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

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

1.33 QUALITY ASSURANCE

The proposed building is a prestigious project and quality of work is of paramount importance. Contractor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work.

The work shall commence only after the manufacturing facility of the Contractor is got approved from the Institute. Such factory approval shall be obtained within 15 days of the award of work. Any delay in such approval shall not be treated as hindrance of work. All expenses in connection with the inspection and approval of manufacturing facility shall be borne by the contractor. The Institute, in its wisdom, may undertake periodic inspections of the manufacturing facility and the contractor shall extend all assistance and cooperation in this regard.

The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge & contractor shall be bound to replace / remove such sub-standard/ defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

In addition to the supervision of work by Institute, the Consultants deployed by the AIIMS shall also be carrying out regular and periodic inspection of the ongoing activities in the work and deficiencies, shortcomings, inferior workmanship pointed out by them shall be communicated by Institute to the contractor. Upon receipt of instructions from Engineer in Charge these are also to be made good by necessary improvement, rectification, replacement upto his complete satisfaction. Special attention shall be paid towards line and level,

accurate joinery work in wood work protection of scratches over flooring by impounding layer of plaster of Paris. Protection of carpet roll flooring after laying from damage protection of scratch on compactors by providing suitable covering, etc. to achieve an Institution of International standards and up keeping of quality assurance shall be of paramount importance, as such.

All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per suggested list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.

The Contractor shall procure and provide all the materials from the manufacturers /suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contactor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.

The tests, as necessary, shall be conducted in the laboratory approved by the Engineer–in-Charge. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in-Charge or his authorized representative.

The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places, as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.

The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor .The Contractor or his authorized representative shall remain in contact with the Engineer-in–Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.

All the testing charges shall be borne by the contractor/ department in the manner indicated below:

By the contractor, if the results show that the material does not confirm to relevant specifications and BIS codes or any other relevant code for which confirmatory test is carried out.

By the department, if the results show that the material confirms to relevant specifications and BIS codes or any other relevant code for which confirmatory test is carried out.

All the hidden items are to be properly tested as per the design conditions before covering and their measurements in computerized measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.

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

1.34 SUBMISSION AND DOCUMENTATION

The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc under various labour laws and other regulations applicable to the works, at his site office. He should also keep at site at least one set of BIS Codes and other relevant codes at site and produce the same if asked for by Engineer-In-Charge. In case of non compliance, these codes will be purchased from the Market and actual cost of purchase will be recovered from the next RA Bill of the Contractor.

The Performance Guarantee shall not be released to the contractor until the aforesaid drawings are submitted to the Engineer-in-Charge

The contractor will submit computerized measurement sheet for the work carried out by him for making payment as per Clause – 6A of the CPWD General Conditions of Contract 2014 (with correction slips upto the previous last day of submission of tender). Hidden and other items, corrected and duly test checked measurement sheets shall be deposited with Engineer in charge or his authorized representative, before covering of hidden items. The delay in submission of corrected and duly checked measurement sheet may delay in execution of other item for which no hindrance shall be recorded.

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

1.35 Program Chart:

The Contractor shall prepare an integrated program chart within ten days of issue of award letter including civil for the execution of work, showing clearly all activities from the start of work to completion, with details of manpower, equipment and machinery required for the fulfilment of the program within the stipulated period and submit the same for approval of the Engineer-In-Charge within ten days of the award of the work. These shall be submitted by the contractor through electronic media besides forwarding hard copies of the same. The integrated program chart so submitted should not have any discrepancy with the physical milestones attached in the contract agreement. The program chart should include the following: -

Descriptive note explaining sequence of various activities.

Program for procurement of materials by the contractor.

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

Program of procurement of machinery/equipment having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor.

Program for achieving fortnightly micro milestones and periodic milestones.

If at any time, it appears to the Engineer-In-Charge that the actual progress of work does not conform to the approved program referred above, the contractor shall produce a revised program showing the modifications to the approved program by additional inputs to ensure completion of the work within the stipulated time.

The submission for approval by the Engineer-In-Charge of such program or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-In-Charge to take action against the contractor as per terms and conditions of the agreement.

Apart from the above integrated program chart, the contractor shall be required to submit fortnightly progress report of the work in a computerized form on 1st and 16th of every month. The progress report shall contain the following, apart from whatever else may be required as specified above:

Construction schedule of the various components of the work through a bar chart for the next two fortnights (or as may be specified), showing the micro-milestone/milestones, targeted tasks (including material and labour requirement) and up to date progress. Atleast 10 digital photographs showing all the parts of construction site along with atleast 5 minutes video of executions of different items in soft copy has to be submitted in every fortnightly progress report.

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

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

Man-power statement indicating:

Individually the names of all the staff deployed on the work, along with their designations.

No. of skilled workers (trade wise) and total no. of unskilled workers deployed on the work and their location of deployment i.e. blocks.

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

In case of non compliance / delay in compliance in submission of fortnightly reports, a penalty @ Rs. 1000/- per fortnightly report will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

1.36 INSPECTION OF WORK

In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by Senior Officers of Institute & the representative of the Consultants .The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-charge or other officers as stated above to visit the works shall have been given to the contractor, either himself be present to receive the orders and instructions or have a responsible representative duly accredited in writing, to be present for that purpose.

Inspection of the work by Consultant appointed by the Institute.
The consultant appointed by Institute, shall be inspecting the works including workshops and fabrication factory to ensure that the works are in general being executed according to the design, drawings and specifications laid down in the contract.

Senior Officers of Institute, Dignitaries from Central Ministry / Department shall be inspecting the on-going work at site at any time with or without prior intimation. The contractor shall, therefore, keep updated the following requirements and detailing.

- Display Board showing detail of work, weekly progress achieved with respect to targets, reason of shortfall, status of manpower, wages being paid for different categories of workers.
- Entrance and area surrounding to be kept cleaned.
- Display layout plan key plan, Building drawings including plans, elevations and sections.
- Upto date displays of Bar chart, CPM and PERT etc.
- Keep details of quantities executed, balance quantities, deviations, possible Extra item, substituted Item etc.
- Keep plastic / cloth mounted one sets of building drawings.
- Set of Helmets and safety shoes for exclusive use for officers/dignitaries visiting at site.

1.37 DEFECT LIABILITY PERIOD (REFUND OF SECURITY DEPOSIT)

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

released after a period of 12 months provided the performance is satisfactory but subject to other provisions specified elsewhere in the contract agreement.

1.38 DEALING WITH INCONSISTENT RATES

The Contractors shall quote same rates for the identical items which may inadvertently appear in more than one place if different rates are quoted by the bidders' for such identical items, the same shall be rationalized by considering the lowest quoted rate for such items, for evaluation and acceptance of tender.

Wherever any reference to any Indian Standards occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, up to the date of receipt of tenders.

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

The rates for all items of work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labour, material, T & P, scaffolding, wastages, watch and ward, other inputs, all incidental charges, all taxes, cess, VAT, duties, levies etc. required for execution of the work.

1.39 INSURANCE POLICIES

Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Engineer-in-Charge proper Contractor All Risk Insurance Policy for an amount 1.25 times the contract amount for this work, with Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Department from any liability during the execution of the work. Further, he shall obtain and submit to the Engineer-in-Charge, a third party insurance policy for maximum Rs.10 lakh for each accident, with the Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). The Contractor shall, from time to time, provide documentary evidence as regards payment of premium for all the Insurance Policies for keeping them valid till the completion of the work. The Contractor shall ensure that Insurance Policies are also taken for the workers of his Sub-Contractors / specialized agencies also. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall within 10 days from the date of letter of acceptance of the tender and thereafter at the end of each quarter submit a report to the Department giving details of the Insurance Policies along with Certificate of these insurance policies being valid, along with documentary evidences as required by the Engineer-in-Charge. No work shall be commenced by the Contractor unless he obtains the Insurance Policies as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policies unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim of hindrance (or any other claim) shall be entertained from the contractor on these accounts.

SPECIAL CONDITIONS FOR GREEN BUILDING

The building is proposed to be registered for obtaining GRIHA Rating from GRIHA Secretariat under MNRE scheme to obtain minimum 3 star rating. The contractor is required to execute the work in a befitting manner to obtain the targeted GRIHA rating.

Special conditions for GRIHA rating:-

2.1 The contractor shall prepare scheme for the approval of Engineer -in-charge for obtaining GRIHA rating in the criteria relevant to the execution of work as per advice of Green Building Consultant of main Consultant.

2.2 The contractor shall plan and execute the work in a manner to preserve and protect the landscape during construction and shall arrange the materials/equipment and follow the procedure as per criterion 2 of the GRIHA rating as applicable.

2.3 All the mandatory criteria of GRIHA and additional conditions for Green Building practices are to be necessarily followed for entire academic parcel.

2.4 The contractor shall comply with NBC norms on construction safety, health and sanitation as per criterion 8.

2.5 The construction activity shall be done in a befitting manner and the contractor shall adopt measures to prevent air pollution at site in compliance with criterion 9 of GRIHA rating as applicable.

2.6 The contractor shall comply with all the instructions and schemes for execution of green building.

2.7 Nothing shall be paid extra for fulfilment of all these conditions except for the items existing in the schedule of quantities. For such items work done shall be paid on the basis of the agreement rates.

2.8 Pre-construction Stage

Construction Vehicles, Equipment and Machinery

All vehicles, equipment and machinery to be procured for construction shall conform to the relevant Bureau of India Standard (BIS) norms.

Emission from the vehicles must conform to environmental norms.

Dust produced from the vehicular movement and other site activities is to be mitigated by sprinkling of water.

Noise limits for construction equipments shall not exceed 75 dB(A), measured at one meter from the edge of the equipment in free area, as specified in the Environment Protection Act,1986, schedule VI part E, as amended on 9th May,1993. The maximum noise levels near the construction site should be limited to 65 dB (A) Leq (5 min) in project area.

2.9 Construction Stage

Construction Wastes Disposal

The pre-identified dump locations will be a part of solid waste management plan to be prepared by the Contractor in consultation with Engineer -in-charge.

Contractor shall get approved the location of disposal site prior to commencement of the excavation on any section of the project location.

Contractor shall ensure that any spoils of material will not be disposed off in any municipality solid waste collection bins.

2.10 Procurement of Construction Materials

All vehicles delivering construction materials to the site shall be covered to avoid spillage of materials and maintain cleanliness of the roads.

Wheel Tyres of all vehicles used by of the contractor, or any of his sub contractor or materials supplies shall be cleaned and washed clear of all dust/mud before leaving the project premises. This shall be done by routing the vehicles through tyre washing tracks.

Contractor shall arrange for regular water sprinkling at least twice a day (i.e. morning and evening) for dust suppression of the construction sites and unpaved roads used by his construction vehicles.

2.11 Water Pollution

(i) The Contractor shall take all precautionary measures to prevent the wastewater during construction to accumulate anywhere.

(ii) The wastewater arising from the project is to be disposed off in the manner that is acceptable to the Engineer -in-charge.

2.12 Air and Noise Pollution

Contractor shall use dust screens and sprinkle water around the construction site to arrest spreading of dust in the air and surrounding areas.

Contractor shall ensure that all vehicles, equipment and machinery used for construction are regularly maintained and confirm that emission levels comply with environmental emission standards/norms.

For controlling the noise from Vehicles, Plants and Equipments, the Contractor shall confirm the following:

All vehicles and equipment used in construction will be fitted with exhaust silencers.

Servicing of all construction vehicles and machinery will be done regularly and during routine servicing operations, the effectiveness of exhaust silencers will be checked and if found defective will be replaced.

Noise emission from compactors (rollers) front loaders, concrete mixers, cranes (movable), vibrators and saws should be less than 75 dB(A).

As per the standards/guidelines for control of Noise Pollution from Stationary Diesel Generator (DG) sets, noise emission i n dB(A) from DG Set (15-500 KVA) should be less than 94+10 log 10 (KVA). The standards also suggest construction of acoustic enclosure around the DG Set and provision of proper exhaust muffler with insertion loss of minimum 25 dB(A) as mandatory.

2.13 Personal Safety Measures for Labour

Contractor will provide the following items for safety of workers employed by contractor and associate agencies:

- Protective footwear and gloves to all workers employed for the work on mixing, cement, lime mortars, concrete etc. and openings in water pipeline/sewer line.

- Welder's protective eye-shields to workers who are engaged in welding works.

- Safety helmet and Safety harness/ belt Provide adequate sanitation/safety facilities for construction workers to ensure the health and safety of the workers

during construction, with effective provisions for the basic facilities such as sanitation, drinking water and safety equipments or machinery.

- All the workers should be wearing helmet and shoes all the time on site.
- Masks and gloves should be worn whenever and wherever required.
- Adequate drinking water facility should be provided at site, adequate number of decentralized latrines and urinals to be provided for construction workers.
- Full time workers residing on site should be provided with clean and adequate temporary hutment.
- First aid facility should also be provided.
- Overhead lifting of heavy materials should be avoided. Barrow wheel and hand-lift boxes should be used to transport materials onsite.
- Tobacco and cigarette smoking should be prohibited onsite.
- All dangerous parts of machinery are well guarded and all precautions for working on machinery are taken.
- Maintain hoists and lifts, lifting machines, chains, ropes and other lifting tackles in good condition. Provide safety net of adequate strength to arrest falling material down below.
- Use of durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
- Ensure that walking surfaces or boards at height are of sound construction and are provided with safety rails and belts. Provide protective equipments such as helmets.
- Provide measure to prevent fire. Fire extinguisher and buckets of sand to be provided in fire-prone area and elsewhere.
- Provide sufficient and suitable light for working during night.
- Ensure that measures to protect workers from materials of construction, transportation, storage and other dangers and health hazards are taken
- Ensure that the construction firm/division/company have sound safety policies.
- Comply with the safety procedure, norms and guidelines (as applicable) as outlined in NBC 2005 (BIS 2005c).
- Adopt additional best practices and prescribed norms as in NBC 2005 (BIS2005).

2.14 Identify roads on-site that would be used for vehicular traffic. Update vehicular roads (if these are unpaved) by increasing the surface strength by improving particle size, shape and mineral type that make up the surface base. Add surface gravel to reduce source of dust emission. Limit amount of fine particles (smaller than 0.075mm) to 10 -20%. Limit vehicular speed on site 10km/h. Nothing extra will be payable for this.

2.15 All material storages should be adequately covered and contained so that they are not exposed to situations where winds on site could lead to dust/particulate emissions.

2.16 Spills of dirt or dusty materials shall be cleaned up promptly so the spilled material does not become a source of fugitive dust and also to prevent of seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean – up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained/cleaned up immediately before they can infiltrate into the soil/ground or runoff in nearby areas.

2.17 Ensure that water spraying is carried out by wetting the surface by spraying water on:

Any dusty material.
Areas where demolition work is carried out.
Any unpaved main-haul road and.
Areas where excavation or earth moving activities are to be carried out.

2.18 The contractor shall ensure the following:

Cover and enclose the site by providing dust screen, sheeting or netting to scaffold along the perimeter of a building.
Covering stockpiles of dusty material with impervious sheeting.
Covering dusty load on vehicles by impervious sheeting before they leave the site.

Transferring, handling/storing dry loose materials like bulk cement and dry pulverized fly ash inside a totally enclosed system.
Spills of dirt or dusty materials shall be cleaned up promptly so that the spilled material does not become a source of fugitive dust and also to prevent seepage of pollutant laden water into the ground aquifers. When cleaning up the spill, ensure that the clean-up process does not generate additional dust. Similarly, spilled concrete slurries or liquid wastes should be contained / cleaned up immediately before they can infiltrate into the soil/ground or runoff in nearby areas.

Clear vegetation only from areas where work will start right away.
Vegetate/mulch areas where vehicles do not ply.
Apply gravel / landscaping rock to the areas where mulching/paving is impractical.

2.19 Adopt measures to prevent air pollution in the vicinity of the site due to construction activities. There is no standard reference for this. The best practices should be followed (as adopted from international best practice documents and codes).

2.20 Provide sheet covering/barricading of site of not less than 3m height along the site boundary, next to a road or other public area. Nothing extra will be paid for this.

2.21 The contractor shall provide experienced personnel with suitable training to ensure that these methods are implemented. Prior to the commencement of any work, the method of working, plant equipment and air pollution control system to be used on - site should be made available for the inspection and approval of the Engineer -in-Charge to ensure that these are suitable for the project.

2.22 Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical/hazardous wastes such as oil, paint, batteries

and asbestos. The inert waste is to be disposed off to Municipal Corporation/local bodies dump yard and landfill sites.

2.23 To preserve the existing landscape and protect it from degradation during the process of construction. Select proper timing for construction activity to minimize the disturbance such as soil pollution due to spilling of the construction material and its mixing with rainwater. The construction management plan including soil erosion control management plan shall be prepared accordingly for each month. The application of erosion control measures includes construction of gravel pits and tyre washing bays of approved size and specification for all vehicular site entry/exits, protection of slopes greater than 10%. Sedimentation Collection System and run-off diversion systems shall be in place before the commencement of construction activity. Preserve and protect the existing vegetation by not-disturbing or damaging to specified site areas during construction.

2.24 The Contractor should follow the construction plan as proposed by the Engineer-in-charge / landscape consultant to minimize the site disturbance such as soil pollution due to spilling. Use staging and spill prevention and control plan to restrict the spilling of the contaminating material on site.

2.25 Spill prevention and control plans should clearly state measures to stop the source of the spill. Measures to contain the spill and measures to dispose the contaminated material and hazardous wastes. It should also state the designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners and petroleum products.

2.26 A soil Erosion and Sedimentation Control Plan (ESCP) should be prepared prior to construction and should be applied effectively.

2.27 The contractor shall prepare and submit 'Spill prevention and control plans' before the start of construction, clearly stating measures to stop the source of the spill, to contain the spill, to dispose the contaminated material and hazardous wastes, and stating designation of personnel trained to prevent and control spills. Hazardous wastes include pesticides, paints, cleaners, and petroleum products.

2.28 The contractor shall ensure that no construction leaches (Ex: cement slurry) is allowed to percolate into the ground. Adequate precautions are to be taken to safeguard against this including reduction of wasteful curing processes, collection, basic filtering and reuse. The contractor shall follow requisite measures for collecting drainage water run-off from construction areas and material storage sites and diverting water flow away from such polluted areas. Temporary drainage channels, perimeter dike/swale, etc. shall be constructed to carry the pollutant -laden water directly to the treatment device or facility (municipal sewer line).

2.29 All lighting installed by the contractor around the site and at the labour quarters during construction shall be CFL bulbs of the appropriate illumination levels. This condition is a must, unless specifically prescribed otherwise.

2.30 All paints, adhesives and sealants should comply with the VOC limits prescribed by

GRIHA, as follows:

Table 1- VOC limits for paints, adhesives and sealants

Non-flat paints	150	Wood flooring adhesive	100
Flat (Mat) paints	50	Tile Adhesive	65
Anti-corrosive/antirust paints	250	Indoor Carpet Adhesive	50
Varnish	350	Wood	30
Lacquer	550	Stains Water proofing sealer	250

2.31 All the building materials and systems used on site must be as per the specifications and approved makes by the Engineer-In-Charge.

2.32 All required certificates explaining the properties of the building material/system needs to be obtained from the manufacturer/vendor as required by the green building rating authority. The final certificates would be produced after the approval of green building consultant with necessary due diligence. The purchase orders of all the materials made with the manufacturers / authorized vendors should be maintained and shall be provided for the process with due diligence upon request.

2.33 Water saving measures as suggested by the consultants need to be followed on site.

2.34 The contractor / subcontractor shall prepare and submit a Site Management Plan (SMP) within 10 days of start, for approval by the Engineer -in-charge. This SMP shall indicate the locations of godown, stockpiles, barricading, waste storage, offices, vehicular movement routes etc. In short this SMP would comprehensively represent how the site activities shall be managed conforming to GRIHA guidelines. Contractor will be penalized @ Rs. 500 per day of delay on non-submission of SMP beyond due date to be recovered from next RA bill.

2.35 Any other site management measures suggested by the Engineer-in-charge / green building consultant shall be followed on site.

2.36 The contractor shall submit to the Engineer -in-Charge after construction of the buildings, a detailed as built quantification of the following within 10 days of recording of completion. Contractor will be penalized @ Rs. 500 per day of delay on non-submission of SMP beyond due date to be recovered from the Final bill:

Total materials used
Total waste generated,
Total waste reused,
Total water used,
Total electricity consumed, and
Total diesel consumed.

2.37 Evidence for the implementation of the all the above required measures shall be provided to the green building consultant in the form of photographs and templates as required which is required for the submission to the green building rating authority (GRIHA).

2.38 2.38 Nothing extra shall be payable for above provisions unless otherwise specified in Schedule of Quantity

SCHEDULE- C
TECHNICAL SPECIFICATIONS

FOR Civil WORKS

CARPENTRY AND JOINERY

1. GENERAL:

1.1. General Requirement.

This section of the specifications shall be read in conjunction with the drawings and other contract documents and other sections of this specification which shall be deemed complimentary with one another. The contractor shall be responsible for providing all plant, tools, materials and all things necessary for the proper storage of materials, execution, completion and maintenance of the works.

1.2. Delivery and Storage.

All timber delivered to the site shall be carefully stored above ground in such a manner as to provide proper drainage, ventilation and protection from the weather and shall be stored in a proper manner according to each material type.

1.3. Definition of carpentry.

The definition of carpentry work shall be deemed to include fixing clips, blocking grounds, fittings, sub-frames, rough frames and wood framing members, as per relevant IS Codes.

1.4. Moisture content of timber.

Timber shall be well seasoned and clean dried with a moisture content of 12% nominal+2% for teak wood. The contractor should get it tested for moisture content of wood at their own cost as per the direction of the Architects/Engineer in charge and produce the certificate to Indian Oil Corporation Ltd for approval.

1.5. Protection, Delivery & Storage.

All timber shall be treated with preservatives before delivery to site.

All joinery and joinery timber shall be wrapped in polythene before and during transport and delivery to site.

While remaining in polythene wrappers the timber shall be protected from extremes of temperature and direct sunlight.Internal joinery and joinery timber shall be kept in its original polythene wrappers before working fixing and installing on site.Polythene wrapping to external joinery and timber shall be removed on delivery to site or as previously specified.

1.6. Timber.
Timber shall be of the species stipulated in the schedules of rates. It shall be thoroughly seasoned, free of defects which would affects strength and shall be flat, straight, non aplitting and dressed on all sides. The timber shall be free from decay, fungal growth, bored heart, pitch pockets or streaks on the exposed edges, splits and cracks. Knots should be avoided. Seasoning of timber shall be approved as per IS: 1141 (specification for code practice for seasoning of timber) and code of practice for preventation of timbers as per IS: 401.

1.7. Timber Fixing.

The carpentry timber shall fixed with nails, spikes, bolts, screws, hangers, stirrups, anchors, ties or any other accessories which are suitable to develop the full strength of the member.

1.8. Fixing.

Carpentry timber fixed to solid masonry or concrete shall secured with expansion bolts or other positive method of mechanical fastening. Carpentry timber where fixed into hollow masonry shall be secured with toggle bolts and steel with bolts, nuts & washers as per instruction of Engineer.

1.9. Fiber plugs.

Fixing by means of well-seasoned and preservative treated wooden plugs will be permitted only where it is required.

1.10 Fastening.

Power driven fasteners may be used for fastening to steel, concrete and brick masonry as approved by Engineer.

2. PROTECTION AND RETARDANTS:

2.1. Organic protection-timber generally.

The contractor shall make his own investigation to guard against local sources of attack and damage and take all necessary precautions for protection.

All timber shall be protected with an organic solvent water repellent wood preservative to give a highly efficient protection against termite, spider, worm, all insect and insect and fungus and attack and shall where exposed, enhance the appearance of the timber, colour of the product shall be such as to bring out the natural colour of the respective timber.

The preservative shall penetrate deeply into the timber, shall protect against blue stain, rot, fungus & termite, spider, work & all insects attack and shall contain a resin which fixes the preserving agent and protects them against teaching and evaporation. The protection shall also be water repellent, weather proof and proof against peel, crack of blister of approved quality. Preservative treatment of timber shall be done as per IS: 401.

2.2. Fire Retardant.

Fire retardant treatment of timber shall be applied by vacuum/pressure impregnation or manually and shall comply with the requirement of ISI code of practice and local fire requirements. The fire retardant effect shall be produced by the generation of water vapour and inert gases and the production of hard crystalline charcoal which acts a heat barrier.

3. JOINERY.

3.1. Timber veneers.

a) Timber veneers shall be of the timber species shown on drawings. Veneers are to be kept in sequence as it is being out from wood and supplied as such to the site for accurate matching of figuring.

b) Adhesives for using fixing veneers shall be in accordance with the manufacturer's recommendations and as approved by engineer-in-charge.
c) If adhesives other than contract type are required then bonding shall be in presses.
d) The veneer shall be finished as specified and shall be equal or superior quality to the laid down in IS: 1659-1960 or as approved.
e) The contractor shall submit a one square meter sample of each finished veneer type for approval. The size of such sample shall be one square meter unless otherwise specified.
f) Adhesive used for bonding BWP grade of plywood Boards shall be BWP type synthetic resins conforming IS: 848 respectively.

1.2. Plywood.

a) Plywood shall be a product of a balanced construction made of piles assembled by gluing, the chief characteristics being the crossing of alternate piles improve the strength properties and minimize movement the plan of board.
b) Plywood shall be of best quality close grained plywood suitable for veneering, painting or bonding plastic laminate. It shall be a resin bonded, water proof band. Exposed edges shall be finished with an edge strip of solid teak wood tongued and grooves & glued or as detailed.
c) The manufacturer and reference for plywood suitable shall be subject to approval. The thickness shall be in accordance with the drawings.
d) Plywood shall be of BWP grade or BWP type synthetic resin conforming IS: 848.

1.3. Particle board.

a) Wood band particle board shall be a board made from wood particles bonded with a synthetic resin and/or other organic bonder. Thickness shall vary as shown on drawings. Particle board shall comply with SI 12823.
b) Interior grade particle board shall be used externally or internally with damp surroundings.
c) Manufacturer and reference for particle board shall be subject to approval.
d) Adhesive used for bonding shall be conforming IS: 848.

3.4. Block board / Lamine board(solid).

a) Block boards have a solid core made up of uniform strips of wood each not exceeding 25mm in length, laid separately, or spot glued, or ootherwise joined to form a slab which is glued. Between two or more outer veneers. In any one block Board, the core strips shall be of one species of timber only. Face veneers may be decorative or commercial on both faces or decorative on on one face only and or commercial on the other. Block Boards shall be grade I (Exterior grade) as per IS: Code 1659.
b) Manufacturer and reference of block board/shall be subject to approval.
c) Adhesive used for bonding shall be conforming IS: 848.
d) Storage of sheet materials.
Sheet materials shall be transported and stored flat, with sufficient support of prevent bowing and wrapping and to prevent damage to edges and corners. Sheet materials shall be protected from weather and kept off the ground and in dry, well ventilated condition.

3.6. Sample:

The contractor shall submit sample of all materials including large samples of veneer assemblies for approval. All materials pre-fabricated, delivered and assembled shall be in accordance with the approved sample as per instruction of Engineer.

3.7. Shop drawings-Cabinet joinery:

The contractor shall submit for approval shop drawings for all cabinet joinery. Shop drawing shall relate to site measurement and show in detail the construction of the various parts of the work, the method of jointing, the thickness and type of material, the finishes to be applied to the various exposed surfaces, details of anchoring, joints, welds, fastening and all other relevant information.

4. JOINERY—GENERAL:

4.1. General.

Joinery shall be carried out strictly in accordance with the drawings where joints are not specifically indicated recognized forms of joints shall be used.

Where no dimensions are specified or shown on drawings, the contractor shall space fixing battens, fillets, ground studs and the like, in accordance with the recommendation of the manufacturer.

5. TIMBER VEREERED AND LAMINATED PLASTIC PANEL:

5.1. General.

Reference should be made to section of this specification which relate to timber and plastic laminate veneer.

a) The panels shall be factory made and shall be selected timber veneer or plastic laminate veneer glued to water proof plywood (as per IS Code) the edge of which shall be finished with hardwood lipping. The size and finishes of the panels shall be in accordance with the drawing and schedules instruction of Engineer.

5.2. Fire Rating.

Panels shall be rendered fire retardant and to confirm to local fire regulations of concerned Authorities.

5.3. Protection and Storage.

a) Panels shall delivered to site in perfect condition and in their original protective coverings.
b) Panels shall be stored flat and stacked evenly in such a manner as to allow air to circulate around them freely and shall be protected from damp, direct sunlight and all other damage.

5.4. Installation.

a) Panels shall not be installed until all plastering work is dry.
b) Panels shall be installed according to the drawing & schedules and to the manufacturer's recommendations.
c) Panels are to be securely fixed to wall with screws on painted mild steel Z clips at 600 mm centers horizontally and 1200 mm centers vertically and shall be installed true and plumb on hardwood packing pieces as necessary.
d) Panel edges cut on site shall be scaled and made good with a veneer edging strip to match the factory finish.

e) On, completion of installation the panels shall be left to perfect condition and properly protected against damage, damp excessive heat, dirt and direct sunlight.

5.5. Samples.
The contractor shall submit a sample of each type of veneer/laminate panel for approval before general fabrication is put in hand.

6. Great care must be exercised in cutting the RCC slabs/beams to located suitable reinforcement for welding the MS flats to be provided for suspension of false ceiling system. The damage to the RCC member shall be made good with cement mortar 1:3(1cement:3coarse sand). The projecting portion of the MS flat below the RCC member and any other steel member in the false ceiling system shall be painted with one coat of red oxide paint.

2. ALUMINIUM GLAZED PARTITION / DOORS / WINDOWS:

2.1. General specification, materials & erection.

Anodised tubular aluminum sections for doors, windows partition frames shall be of INDAL/JINDAL or approved equivalent make and shall be of size and design as per relevant drawings.

All moving and fixing frames shall be manufactured from Aluminum alloy conforming to IS IIE 9 WP.
The alternate vertical frames shall be taken up beyond false ceiling up to main RCC ceiling/beam and shall take up beyond false ceiling up to main RCC ceiling/beam and shall be properly screwed with main RCC ceiling/beam by way of raw/plugs/flats/deatsetc completed.

The door shutter section shall be 5.5 mm thick plain glass fixed with necessary gasket and snap fit aluminum beading strip. The glazing for shutters shall be 5.5 mm thick laminated safety glass or as specified.

The door shall be provided with one security 6 lever lock. The shutters shall be provided with anodized aluminum butterfly door handles inside and outside.

The average thickness of anodized coating shall not be less than 15 microns (IS:1968) or as specified. The glazed partition frames shall be provided with approved anchors @ 90 cm c/c maximum for fixing. The bottom rail shall be fixed by way of bolts/screws to the false flooring.

2.2. Payment.

Payment including cost of labour, materials, taxes, carriages etc. shall be made on square meter basis of finished work. Fixed glazed partition shall be measured deducting the shutter within it and up to false ceiling only. Nothing extra shall be paid for taking vertical fame members upto main ceiling/RCC slab or beam. Door shutter shall be paid extra on square meter basis. Only clear opening or area for open able shutter left within the glazed partition shall be measured for payment.

STANDARD TECHICAL SPECIFICATIONS FOR PAINTING JOB

1. PAINTING.

1.1. Materials

Paint, oils varnishes etc of approved brand and manufacturer shall be used synthetic enamel paint as received from the manufacturer without any admixture shall be used. (Conforming to IS: 2932)

Approved paints, oil or varnishes shall be brought to the site of work by the contractor in their original containers in sealed condition. The empty tins shall not be removed from the site of work till the relevant item of work has been completed and obtained from the Engineer-in-charge.

1.2. Commencing Work

1.3. Painting shall not be started until the Engineer-in-charge has inspected the items of work to be painted, satisfied himself about their proper quality can give his approval to commence the painting work.

1.4. Preparation of Surface

The surface shall be thoroughly cleaned and dusted. All rust, dirt scales, smoke and grease shall be thoroughly removed before painting is started. The prepared surface shall have received the approval of the Engineer-in-charge after inspection.

1.5. Application

Before pouring into smaller containers for use, the paint shall be continuously stirred in the small containers so that its consistency is kept uniform.

The painting shall be laid on evenly and smoothly by means of crossing and laying off, the later in the direction of the grain of wood. The crossing and lying off consists of covering the area over with paint, brushing the surface hard for the first time over and then brushing alternately in opposite direction, two or three times and then finally brushing alternately in opposite direction, two or three times and then finally brushing lightly in a direction at right angles to the same. In this process no brush marks shall be left after laying off is finished. The full process of crossing and laying off will constitute one coat.

Where so stipulated, the painting shall be done with spray, spray machine used may be high pressure type of or a low pressure type, depending on the nature and location of work to be carried out. Skilled and experienced workmen shall be employed for this class of work. Paint used shall be brought to the requisite consistency by adding a suitable thinner as recommended by the paint manufacturers.

Spraying shall be done only when dry condition prevails.

Each cost shall be allowed to dry out thoroughly and rubbed smooth before the next coat is applied.

Each coat expect the last coat, shall be lightly rubbed down with sand paper or fine pumice stone and cleaned off dust before the next coat is laid.

No left over paint shall be put back into the stock tins.

No hair marks from the brush or elegging of paint particle in the concern of panels, angles of molding etc. shall be left on the work.

In painting steel work, special care shall be taken while painting over bolts, nuts, rivets, overlaps etc.

The additional specification for primer and other coats of paints shall be as according to the detailed specifications under the respective headings.

1.6. Brush and Containers

1.7 After work, the brushes shall be completely cleaned from paint and linseed oil by rising with turpentine. The containers, when not in use, shall be kept closed.

1.8. Measurement

The units of measurement for painting except where otherwise stated shall be given in “Sq meter” painting of rain water, soil, waste, vent pipes, etc shall also be measured in “Sq meter”.

1.9.1 Precautions

All furniture, fixtures, glazing, floors etc shall be protected by covering and stains, smear, splashing if any shall be removed and damage done shall made good by the contractor at his cost.

1.10 Rate

Rate shall include cost of all labour and materials, taxes, carrying, cleaning of surface after painting involved in all the operation described above and in the particular specifications given under the several items. It shall also include cost of scaffolding.

1.11 PAINTING PRIMING COAT ON WOOD, IRON SURFACE

2.1.1 Materials

The priming coat for woodwork or iron work shall be as specified in the description of the item. It shall be ready made primer of approved brand and manufacture.IT shall be brought to site in their original packings in sealed condition.

2.2 Preparation Of Surface

2.2.1. Wood work

The woodwork to be painted shall be dry and free from moisture.

The surface shall be thoroughly deaned. All unevenness shall be rubbed down smooth with sand paper and shall be well dusted. Knots, if any, shall cover with preparation of red lead made by grinding red lead in water and mixing with strong glue size and used hot.

The surface treated for knotted shall be dry before painting is applied. After the priming coat is applied, the holes and identifications on the surface shall be stopped with glazier’s putty or wood putty. Stopping shall be done before the priming coat is applied.

2.2.2 Iron and steel work

All rust and seals shall be removed by scrapping or by brushing with steel wire brushes. Hard skin or oxide formed on the surface of wrought iron during rolling which becomes loose by rusting, shall be removed.

All dust and dirt shall be thoroughly wiped away from the surface. If the surface is wet, it shall be dried before priming coat is undertaken.

2.2.3 Application

The shall be applied with brushes, worked well into the surface and spread even and smooth. The painting shall be done by crossing and laying off described.

3 PAINTING WITH SUPERIOR QUALITY SYTHETIC ENAMEL PAINT

3.1.1 MATERIAL

a) Wood Work

The superior synthetic enamel paint of the following brand and manufacture shall only be used.

a)" Luxol High gloss Synthetic Enamel" of Berger Paints.
b)" Apcolite" of Asian Paints (India) Limited.

3.1.2 PREPARATION OF SURFACE

a) Wood Work

The surface shall be cleaned and all unevenness removed as in para 2.2.1. Knots if visible, shall be covered with a preparation of red lead as in para 3.2..1. Holes and indentation on the surface shall be filled in and surface prepared as in 2.2.1.

b) Iron and Steel work

The priming coats shall have dried up completely before painting is started. Dust and scaling shall be carefully removed by scrapping or by brushing with steel wire thoroughly wiped.

3.3. APPLICATION

The number of coats shall be as stipulated in the item. One coat of the specified paint shall be applied and allow to dry overnight. It shall be rubbed next day with the finest grade of wet adhesive paper to ensure a lose particles dusted off.

Next coats shall be applied after the first coat is thoroughly dry. Additional coats shall be applied if found necessary to ensure properly uniform glossy surface, free from streaks, blistered etc in all the cases paint manufacturer's instruction shall be followed melienously.

4 PAINTING WITH WALL PAINT

4.1.1 The wall paint shall be of following brand and manufacturer:

a) LUXOL" Silk Acrylic Emulsion paints of Berger paints or approved equivalent. The paint shall be of approved shade.

4.1.2 "Preparation of Surfaces"

The surface shall be thoroughly cleaned of dust, old white or colour wash or other wall finish by washing with water and scrubbing such removal of white wash, colour washing etc. will be paid for separately. The surface shall then be sand papered to give a smooth and even surface.

Scratches, holes etc shall be made good by applying putty, made of plaster of paris mixed with water on the surface and then sand papering the same after it is dry.

The wall surface which will be painted with wall paint shall be made smooth by applying a putty made of plaster of paris mixed with water on the entire surface including filling up the undulations and then sand papering the same after it is dry such application of plaster of paris will not be paid separately.

4.2 Material.

Cement primer of approved brand and manufacture shall be used.

4.3 Application

On properly prepared and primer surface, wall paint shall be applied in the usual manner with brush or roller.

The number of coat shall be as stipulated in the item.

When painting inside a wall ventilated room, the second coat can be applied one hour after the first.

The thinning of paint is to be done with water. The quantity of thinner to be added for first and second coat shall be as per manufacture's instructions.

The surface on finishing shall present a flat velvety smooth finish and uniform appearance. If necessary more coats will be applied till the surface present, uniform appearance. In all cases the manufacturer's instructions shall be followed meticulously.

4.4 Other details these shall be as per specification for painting (general) as for they are applicable.

5 French Spirit Polishing.

5.1 Pure shellac varying from pale orange to lemon yellow colour, free from resin or dire shall be dissolved in methylated spirit. Suitable pigment shall be added to get the required shade.

5.2 The surface shall be cleaned. All unevenness shall be rubbed down smooth with sand paper well dusted. Knots of visible shall be covered with a preparation of red lead and glue size laid on while hot. Holes and indentations on the surface shall be stopped with glazier's putty. The surface shall then be given coat of wood filler made by mixing whiting in methylated spirit at the rate of 1:5 kg of whiting per liter of spirit. The surface shall again be rubbed down perfectly smooth with glass paper and wiped clean.

5.2.1 The number of coats of polish to be applied shall be as descried in the item a pad of woolen cloth covered by a fine cloth shall be used to apply the polish. The pad shall be moistened with the polish and rubbed hard on the wood, in a series of overlapping circles applying the mixture sparingly but uniformly over the entire area to give an level surface. A trace of linseed oil on the face of the pad facilities this operation. The surface shall be allowed to dry and the remaining coats applied in the same way. To finish off, the pad shall be covered with a fresh piece of clean fine cloth, slightly and quickly with methylated spirit and rubbed lightly and quickly with circular motions. The finished surface shall have a uniform texture of high gloss.

5.2.2 Other details shall be as per the specification for painting (general) as for as they are practicable.

6.0 VITRIFIED FLOOR TILES

6.1 Work included The tenderer shall furnish materials, labour. Plant, equipment and tools to complete the work as specified and or as shown in the drawing.

6.2 Materials

a) Vitrified tiles shall be flat and unglazed on the top surface. They shall be generally 600 X 600 mm in size with a thickness as approved by the Engineer. They shall conform to IS: 15622 of approved make and colour. The tenderer shall submit to the Engineer for his approval samples of tiles which he proposes to use in the work and all tiles used shall be similar to the approved samples. Water absorption's less than 0.08% of above quality of tiles.
b) Ordinary or White Portland Cement:
c) Cement: Ordinary Portland Cement shall conform to IS: 8112
d) White Portland Cement: White Portland Cement shall conform to IS: 8042
e) Sand: The sand used shall be of approved river or pit sand, conforming to IS: 383-1970
f) Water: Water used shall be clean and patable quality as per clause 4.3 of IS: 456-2000

6.3 Workmanship

Tiles shall be laid on 20 mm thick cement morter1 : 4 (1 Cement: 4 Coarse sand) including grouting the points with white cement and matching pigments as approved by Engineer. The fixing shall be done from bottom upwards. Each tile shall be fixed as close as possible to the one adjoining and any thickness of the tiles shall be evened out in the cushioning mortar so that all the tiles faces are set in conformity with one another. After finishing above job surface shall be cleaned and cured.

ELECTRICAL TECHNICAL SPECIFICATIONS

1.0 SPECIFICATION OF WORK, MATERIALS, TOOLS AND EQUIPMENT:

The Contractor shall supply all materials, tools, plants and instruments necessary for the efficient execution of the work to complete within the stipulated time.

The materials specified in the schedule of Rates will only be used, other than the specified make written approval from Engineer-in-Charge is to be taken for issuing these materials. And a copy of the approval is to be furnished to Technical Services Department before using these materials.

All materials brought to site shall be approved by Engineer-in-Charge. Materials which are sub-standard shall be rejected. The substandard materials brought to site or used in the work shall be removed by the Contractor within 24 hours on receipt of the notice to that effect from the Site Engineer. Decision of the Engineer-in-Charge in regard to quality of materials will be final & binding.

i) Indian Electrical Act. 1910.
ii) Indian Electricity Rules 1956 and regulations framed there under.
iii) The rules and bye laws of the local Electric supply Authorities.
iv) Standards & Practices maintain by Indian Oil.

Good and skilled workmanship is as essential as the good quality of materials. Where the workmanship is not considered to be approved standard, the work should be dismantled and redone as directed by the Engineer-in-Charge or by the Site Engineer. This will, however, be decided during the progress of work or within one month from the date of completion of the work. The of the Engineer-in-Charge will be final.

1.1 GENERAL

Work under this contract shall be executed as given in this tender document and as required at site whether specifically shown or not. The contractor shall carry out and complete the work under this contract in every respect in conformity with the contract documents and as per directions of and to the satisfaction of the engineer –in –charge / owners.

1.2 SYSTEM

All equipment to be supplied as a part of contract and the installation works shall be suitable for 415V, 3 ph, 4 wire system, as specified.

1.3 SITE CONDITIONS

All equipment shall be suitable for satisfactory operation at the following site conditions Ambient Conditions

Max 46 deg C 92% relative Humidity.
Min 05 deg C 92% relative Humidity

2.0 POINT WIRING

2.1 General

Technical specifications in this section cover the internal wiring installation comprising of:

- Point wiring for lights,
- Point wiring socket outlets etc. including circuit wiring in concealed / surface conduit as mentioned in drawings.
- Point wiring for telephone outlets
- Sub-main wiring in concealed / surface conduits
- Supply, installation of the light fixtures
- Supply, installation of the distribution boards and the final sub distribution board for the entire building.
- Marking earth stations.

2.2 Standards and Codes

All equipment, components, materials and entire work shall be carried out in conformity with applicable and relevant Bureau of Indian Standards and codes of practice, as amended up to date and as below. In addition, relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended up to date shall also apply. Wherever appropriate Indian Standards are not available, relevant British and / or IEC Standards shall be applicable.

Equipments certified by Bureau of Indian standards shall be submitted, as required.
It is to be noted that updates and current standards shall be applicable irrespective of dates mentioned along with ISS's in the tender documents.

2.3 CONDUITING

2.3.1 PVC Conduits

All conduits used in the contract shall be ISI embossed. The conduits shall have perfectly circular and smooth tubing.

2.3.2 Sheet metal outlet / draw / inspection / junction boxes

Outlet boxes shall be of required sizes and shall be fabricated from 1.6mm thick MS sheets excepting ceiling fan outlet boxes which shall be fabricated from minimum 2 mm thick sheets. Outlet boxes shall be provided with minimum 16 mm projected threaded collars. The outlet boxes shall be of approved quality, finish and manufacture. All outlet boxes shall be provided with an earth stud. The boxes shall be protected from rust by zinc phosphate primer process. For concealed conduiting work, boxes with primer only could be embedded For surface conduiting work, the boxes shall be finished with minimum one coat of enamel paint of approved colour. Alternatively these boxes could be galvanized and painted if so stipulated. The outlet boxes shall be so protected at the time of fixing that no mortar finds its way inside during concrete filling or plastering. For concealed conduiting work, outlet boxes shall be completely embedded in walls / ceilings leaving edges flush with finished wall / ceiling surface.

2.3.4.1 Outlet boxes for light fittings

This shall be minimum 75mm X 75mm deep and provided with one or two threaded collars of conduit entry as required. For ceiling mounted florescent fittings, the boxes shall be provided 300 mm off center for a 1200 mm fitting and 150 mm off center for a 600mm fitting so that the wiring is taken directly to the down rod. 3mm thick Perspex / hylem sheet cover of matching colour shall be provided.

2.3.4.2 Ceiling fan outlet boxes

Outlet boxes for ceiling fans shall be fabricated from min. 2mm thick ms sheet steel. The boxes shall be hexagonal in shape of min. 100mm depth and 60mm sides. Each box shall be provided with one U shaped 15mm dia rod tied to the top reinforcement of the concrete slab for a length of min. 150mm on either side.3mm thick hylem sheet cover of matching colour shall be provided.

2.3.4.3 Switch boxes

Switch boxes suitable to house plate type switches of required rating and fan regulator as required shall be provided. In case of no. of switches in one box is not tallying with that available in standard manufacturer, the box accommodating the next higher no. of switches shall be provided without any extra cost. In case fan regulator / regulators is / are to be provided at a later date, suitable provision for accommodating such regulator shall be made in the switch boxes and are blank off covers shall be provided without any extra cost..

Switch boxes shall be so designed that accessories are mounted on a grid plate with tapped holes for brass machine screws living ample space at the back and on the sides for accommodating conductors, check nuts and brass brushes at conduit entries. The grid plate and ms boxes shall be fitted with a brass earth terminal. Boxes shall be attached to conduits by means of check nuts on either side of their walls. No timber shall be used for any supports. Switch boxes shall be located with bottom at 1200 mm above floor level unless otherwise indicated.

2.3.4.4 Socket outlet boxes

Outlet boxes shall be suitable for housing switch socket outlets, telephone outlets and any other outlet as required. These shall be so designed that accessories are mounted on a grid plate with tapped holes for brass machine screws leaving ample space at the back and on the side for accommodating conductor, check nuts and brass bushes at conduit entries. The grid plate and ms boxes shall be fitted with brass earth terminal. These shall be attached to conduits by means of check nuts on either side of their walls. No timber shall be used for any supports. Boxes shall be located with bottom at 1200 mm above floor level unless otherwise indicated.

2.3.4.5 Draw boxes

Draw boxes of minimum 75mm X 75mm X 50mm Deep of larger as required shall be provided at convenient location to facilitate drawing of long runs of conductors / wires. These shall have screwed covers of 3mm thick hylem sheet.

2.3.4.6 Inspection boxes / junction boxes

Inspection boxes of minimum 75mm X 75mm X 50mm of larger as required shall be provide at suitable location in conduit runs to permit inspection and maintenance. These shall have screwed covers of 3mm thick hylem sheet

2.3.5 Cross Section

The conduit shall be of ample sectional area to facilitate simultaneous drawing of wires. In no case shall the total cross section of wires measured overall be more than half the area of conduit. Max. no. of wires permissible in various sizes of conduits shall be as below.

As per IS

Size of Wire Cu. Conductor	Diameter of conduits	
	19	25
1.5 sq.mm	5	10
2.5 sq.mm	5	8
4.0 sq.mm	4	6
6.0 sq.mm	3	5
10.0sq.mm	2	3

2.3.6 Laying of conduits

Conduits shall be laid either concealed in walls and ceiling or on surface on walls and ceiling or partly concealed and partly on surface as required. The surface of the wall must be finished and painted to match the other part of the room in case of conceal wiring, PATCH MARKS MUST NOT BE VISIBLE. For surface Conduiting the works to performed in highly professional manner with high quality of workmanship to maintain the aesthetic look of the conduit with sufficient no.s of 16 SWG GI saddles with bases. No Flexible conduits will be acceptable in Conduiting works. In case it becomes necessary to use flexible conduits then only flexible GI conduits or Wire Centered PVC conduits are acceptable that too with prior approval of Site Engineer. All the conduits must be threaded at the end and tightly fixed with boxes, conduits, bends, nipples etc. with proper check nuts/ coupler.

Same rate shall apply for concealed and surface conduiting in this contract.

2.3.6.1 Concealed Conduiting

Concealed conduits in concrete members shall be laid before casting in the upper portion of slab or otherwise as may be instructed so as to embed the entire run of conduits and ceiling outlet boxes with a cover of min. 12 mm concrete. Conduit shall be adequately tied to the reinforcement to prevent displacement during casting at interval of max. 1 min. No reinforcement shall be cut to fix the conduits. Suitable flexible joints shall be provided at all locations where conduits cross expansion joints in the building.

2.3.6.2 Surface Conduiting

Wherever so desired, conduit shall be laid in surface over finished concrete and / or plaster brick works suitable cast aluminum spacer saddles of approved make and finish shall be fixed to the finished structural surface along the conduit route at interval not exceeding 600 mm. Holes in the concrete or brick works the saddles shall be made neatly by electric drills. Conduit shall be fixed on the saddles by means of good quality heavy duty ms clamps screwed to the saddles.

2.3.6.3 Painting of conduits and boxes

All draw/switch/junction/fan hook boxes shall be galvanized/CD plated/painted with red oxide in their manufactured form. All ungalvanised/ unplated boxes shall be again painted with red oxide paint as required before fixing. Boxes fixed on surface shall, in addition, the painted with finished paint of approved color and finish. Before laying conduits shall be painted at such places where paint has been damaged.

2.3.6.4 Protection of conduits

To safeguards against filling up with mortar/plaster etc.. All the outlets and switch boxes shall be provided with temporary covers and plugs which shall be replaced by sheet/plate cover as required. All screwed and socketed joints shall be made fully water tight with white lead paste.

CLEANING OF CONDUITS RUNS

The entire conduit system including outlets and boxes shall be thoroughly cleaned after completion of erection and before drawing in of cables.

2.3.6.5 Earthing

Continuous of wires shall be provided for all points, outlets. Earthing terminal shall be provided inside all switch boxes, outlet boxes and draw boxes etc. Earth wire for concealed conduits shall in variably be provided by means of bare copper wire draw inside the conduit and connected to earth stud of all outlet boxes, switch boxes and draw boxes etc. Earth wire for surface conduit shall be by means of bare wire as for concealed conduit or bare copper earth wire taken outside the conduit as per schedule of quantities. Connection with conduit shall be made by suitable screwed clamp, paint or conduit being removed for making effective electrical connection.

2.4 WIRING

Wiring shall be carried out with PVC insulated 660V grade unsheathed single core wires with electrolytic annealed stranded copper (unless otherwise stated) conductors and conforming to IS 694 / 1990. All wires shall be ISI embossed. All wires shall bear manufacturer's label and shall be brought to site in new and original packages. Manufacturer's certificate, certifying that wires brought to site are of their manufacturer shall be furnished as required. All the wires must be FRLS type.

Final connection to light fitting / appliance from termination of point wiring in ceiling / wall light outlet boxes shall be made with 660V grade stranded Cu. Conductor unsheathed PVC flexible cords conforming to IS 694/1990 and having a cross-sectional area not less than 0.75 sq.mm

2.4.1 Bunching of wires

Wires carrying current shall be so bunched in conduits that the outgoing and return wire are drawn into the same conduit. Wires originating from two different phases shall not be run in the same conduit.

2.4.2 Drawing of wires

The drawing of wires shall be done with due regard to the following precautions:

No wires shall be drawn into any conduit until all work of any nature that may cause injury to wire is completed. Care shall be taken in pulling the wire so that no damage occurs to the insulation of the wire. Screwed buses shall be provided at conduit terminations. Before the wires are drawn into the conduits, conduits shall be thoroughly cleaned of moisture, dust, dirt or any other obstruction by forcing compressed air through the conduits if necessary.

2.4.2 Termination / jointing of wires

Sub circuit wiring shall be carried out in loping system. Joints shall be made only at distribution board terminals, switches / buzzers and at ceiling roses / connectors / lamp holders terminals for lights / fans / socket outlets. No joints shall be made inside conduits or junction / draw /

inspection boxes. Switches controlling lights, fans or socket outlets shall be connected in the phase wire of the final sub circuit only. Switches shall never be connected in the neutral wire.

Wiring conductors shall be continuous from outlet to outlet. Joints where unavoidable, due to any special reason shall be made by approved connectors. Specific prior permission from Engineer-in-charge in writing shall be obtained before making such joint.

Insulation shall be shaved off for a length of 15 mm at the end of wire like sharpening of a pencil and it shall not be removed by cutting it square or wringing.

Standards of wires shall not be cut for connecting terminals. All stands of wires shall be soldered at the end before connection.

Ends of PVC insulated aluminum conductor wire ends before connection shall be properly soldered (at least 15 mm length) with suitable soldering material.

Conductors having normal cross sectional area exceeding 4 sq. mm shall always be provided with crimping sockets.

At all bolted terminals, brass flat washer of large area and approved steel spring washers shall be used.

Brass nuts and bolts shall be used for all connections.

The pressure applied to lighten terminal screws shall be just adequate, neither too much nor too less.

Switches controlling lights, fans, socket outlets etc. shall be connected to the phase wire of circuits only.

Only certified wiremen shall be employed to do wiring / jointing work.

2.4.4 LOAD BALANCING

Balancing of circuits in three-phase installation shall be planned before the commencement of wiring and shall be strictly adhered to.

2.4.5 COLOUR CODE OF CONDUCTORS

Colour code shall be maintained for the entire wiring installation – red, yellow, blue for three phases, black for neutral and green for earth.

2.5 SWITCHES AND ACCESSORIES

2.5.1 SWITCHES

All 6 and 16 amps switches shall be of the modular flush mounting type unless otherwise stated, suitable for 250 volt AC supply, best quality and of approved make. The switch moving and fixed contacts shall be of silver nickel and silver graphite alloy and contact tips coated with silver. Housing of switches shall be made from high impact resistant, flame retarding and ultra violet stabilized engineering plastic material.

2.5.2 FAN REGULATORS

Fan regulators shall be fixed inside the switch boxes on grid plates with tapped holes and brass machine screws unless otherwise stated, leaving ample space at the back and sides for accommodating wires. If fan regulator is to be fixed at the later date by Owners, provision for such fixing in the switchbox shall be provided and a blank of plate over the space meant for regulator shall be provided without any extra cost.

2.5.3 SOCKET OUTLETS

6/16 amps socket outlets shall be of modular flush mounting type, unless otherwise stated, and shall be switched, three pin type and fitted with automatic linear safety shutters to ensure safety from prying fingers. Un switched 6/16 amp socket outlets where called for shall also be of three pin type socket outlets shall be made from high impact resistant, flame retarding and ultra violet stabilized engineering plastic material.

Switches and sockets shall be located in the same plate. Plates for 6 amp switched / un switched power and telephone outlets shall be of the same size and shape.

An earth wire shall be provided along the wires feeding socket outlets for electrical appliances. The earth wire shall be connected to the earthing terminal screw inside the box. The earth terminal of the socket shall be connected to the earth terminal provided inside the box.

2.5.4 FLUSH PLATES

Switches, socket outlets, receptacles, and telephone outlets etc. in walls shall be provided with moulded cover plates of approved colour, shape and size made from high impact resistant, flame retarding and ultra violet stabilized engineering plastic material, and secured to the box with counter sunk / round head chromium plated brass screws unless otherwise stated. Where two or more switches are installed together, they shall be provided with one common switch cover plate as described above with notches to accommodate all switches either in one, two or three rows.

One and two gang switch cover plate, telephone outlet cover plate, 6 and 16 amps switched / un switched outlet plates, shall have the same shape and size. Three and four gang switch cover plates shall have the same shape and size. Six and eight gang switch cover plates shall have the same shape and size. Nine and twelve switch cover plates shall have the same shape and size. Whenever five switches, seven switches, ten switches and eleven switches are to be fixed the next higher size of gang switch cover plate to be used and extra openings shall be provided with blank-offs.

2.5.5 OUTDOOR SWITCHES

Switches located outdoors shall be, of required size, type and rating and shall be provided in weather proof enclosures, with weather proof gasket covers. The MCS's/ uses for all outdoor switches shall be separate and of required rating.

2.5.6 LIGHTING FIXTURES, FANS AND EXHAUST FANS

Light fixtures and fittings shall be assemble and installed complete as required and make ready for service, in accordance with drawings, instructions and as offered by Engineer-in-charge.
Wires brought out from junction boxes shall be encased in flexible conduits of make and quality approved by Engineer-in-charge for connecting to fixtures concealed in suspended ceilings. Flexible conduits shall be provided with a check nuts at both ends.
Pendant fixtures specified with overall lengths are subject to change and shall be checked with site conditions and installed as required.

All suspended fixtures shall mounted rigid and fixed in position in accordance with drawings, instructions and as approved by Engineer-in-charge.
Fixtures shall be suspended true to alignment, plumb, level and capable of resisting all lateral and vertical force.
All suspended light fixtures, fans etc. shall be provided with concealed suspension arrangement in the concrete slab / roof members. Making adequate provision for such arrangements at the appropriate stage of construction is deemed to be included in Contractors' scope.
Exhaust fans shall be fixed and locations shown on the drawings. They shall be wired to a plug socket at a convenient location near the fan in flexible conduits.
All switch and outlet boxes, and fan regulators shall be bonded to earth with bare copper wire or equivalent as required.
Wires shall be connected to all fixtures through connector blocks.
Down rods of ceiling fans shall be minimum 19 mm dia class B GI pipes. These shall be rigidly connected to the ceiling fan in an approved manner and shall be connected to the concealed hook in the ceiling by means of standard shackle arrangement as approved by Engineer-in-charge.

2.6 MEASUREMENT AND PAYMENT OF WIRING

Wiring for lights, fans, socket outlets, telephone outlets etc., carried out as per tender specifications shall be measured and paid on point basis only unless otherwise specifically stipulated. The point wiring basis shall assume average wiring length and average conduiting length per point base on parameters stipulated in paragraph below. The average wiring length and average conducting length forming the basis of point wiring payment, shall take the electrical layouts of the entire project into consideration. Tenderers are advised to seek clarifications, if they so desire, on this aspect before submitting their tenders. No claim for extra payment on account of electrical layouts in parts of the project requiring larger average wiring and conduiting length per point whether specifically shown in tender drawings or not shall be entertained after the award of contract.

2.6.1 POINT WIRING

Point wiring shall be carried out as per following parameter.
In concealed / surface conduit system unless otherwise stipulated.
Only looping system of wiring shall be adopted throughout.

All accessories shall be flush types unless otherwise stated.
For estimation of load, following loads per point shall be assumed.

Light points	100 Watts
6 amps socket outlet points	100 watts
Fan points	60 watts
Exhaust fan points	300 Watts or as specified
16-amp socket outlet points	1000 watts.

Light points, fan points and 6 amp socket outlet points may be wired on a common final such circuit. Such circuit shall not normally have more than a total of ten light, fan or socket outlets or a load of 800 watts. Wiring from DB to the first switch in each first sub-circuit is defined as circuit wiring which shall be wired with on size higher wire.

Power circuits shall normally have maximum one 16 amps socket outlet unless otherwise stated. Separate circuit shall be run for each geyser, kitchen equipment, window air conditioners and similar appliances.

Point wiring rates shall include painting of conduits and other accessories as required. Point wiring rates shall include cleaning of dust, splashes of colour wash or paint from all fixtures, fans, fittings etc. at the time of taking over of the installation.

2.6.2 LIGHT POINT

Light point wiring shall commence at the distribution board terminals and shall terminate at the terminate at the ceiling rose/connector in ceiling box/lamp holder via the control switch. Rates quoted shall be deemed to be inclusive of the cost of entire materials and labour required for completion of point wiring thus defined including: a) concealed/surface conducting system complete with all accessories, junction/draw/inspection boxes, screwed brass bushes, check nuts etc complete as required, b) wiring with stranded copper(unless otherwise stated) PVC insulated 660Volt grade wires for point wiring including circuit wiring(wiring from distribution board terminals to the first switch in the circuit) and terminals etc. complete as required), control switch with switch box and cover plate of specified type including fixing screws, earth terminal etc. complete as required) loop earthing with bare copper wires.

2.6.3 CEILING FAN POINT

Point wiring for ceiling fan points shall be same as for light points in para 6.3 above and shall in addition, include ceiling outlet box with recessed fan hoods and provision in the switch box for mounting the fan regulator.
Switch socket shall be earthed with bare copper wires as required.

2.6.4 EXHAUST FAN POINT

Point wiring for exhaust fan point shall be same as for light point above and shall in addition include socket outlet near the exhaust fan and control switch with regulator at a convenient location complete as required.

3 PINS 5 AMPS SOCKET OUTLET POINT (LIGHTING)
Point wiring for lighting convenience socket outlet points shall be same as for light points above and shall in addition include 3 pin 5 a control switch of specified type mounted in a ms box with cover as required and 3rd pin earthed with bare Cu wire as specified

3 PINS 16 AMPS SOCKET OUTLET POINT (POWER)
Point wiring for lighting convenience socket outlet points shall be same as for light points above and shall in addition include 3 pin 5 a control switch of specified type mounted in a ms box with cover as required and 3rd pin earthed with bare Cu wire as specified

2.6.5 CIRCUIT WIRING

Wiring from DB to the first switch in any sub circuit is defined as circuit wiring min. size of PVC insulated Cu conductor wires for all circuit wiring for light, exhaust fan, ceiling fan, and lighting convenience outlet point shall be 2.5sq.mm unless otherwise specified. Circuit wiring shall not be separately measured and paid for point wiring rates shall include the cost of providing circuit wiring as required.

SUB MAIN WIRING
Sub main wiring shall comprise of stranded Cu conductor PVC insulated 660V grade wires in ms conduits including loop earthing, termination etc complete as required. Sizes of conduits, no. / type / size of wires and loop earthing shall be as stipulated in the schedule of quantities and / or drawings.

Wires shall be drawn in the concealed or surface conduits as required, without being damaged. For this purpose draw boxes shall be located at convenient locations.
Every sub mains shall run in an independent conduit with an independent earth wire of bare Cu as specified running along the entire run of conduit. For 1 Ph. One earth wire and for 3 ph. 2 earth wire shall run.
Necessary provision of wire lengths entering and emerging from the conduit shall be made for connection. Measurement shall be taken of the actual conduit run containing the wires from one point to another.

3.0 MEDIUM VOLTAGE CABLES

Specifications for cables will be as per enclosed.ES: 8160

4.0 MEDIUM VOLTAGE FINAL DISTRIBUTION BOARDS

STANDARDS AND CODES

Indian Standard Specifications and codes of practice will apply to the equipment and the work covered by the scope of this contract. In addition the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended upto date shall apply.

MINIATURE CIRCUIT BREAKER

The MCB's shall be of the completely moulded design suitable for operation at 240 / 415 V 50Hz system. The MCB's shall have a rupturing capacity of 10 KA at 0.5 pf. The MCB's shall have inverse time delayed thermal overload and instantaneous magnetic short circuit protection.Type test certificates from independent authorities shall be submitted with the tender.

FINAL DISTRIBUTION BOARDS

Final distribution boards shall be flush mounting, today enclosed, dust and vermin proof and shall comprise of miniature circuit breakers, earth leakage circuit breakers neutral link etc. as detailed in the schedule of quantities. The distribution equipment forming a part of the distribution board shall comply with the relevant standards and codes of the bureau of Indian Standards and as per detailed specification included in this tender document. The board shall be fabricated from 14 gauge CRCA sheet steel and shall have a hinged lockable spring loaded cover. All cutouts and cover shall be provided with synthetic rubber gaskets. The entire construction shall have IP54 degree of protection. The bus bar shall be of Cu having a maximum current density of 1.6 A / sq.mm and PVC insulated throughout the length. All the internal connection shall be with either solid Cu PVC insulated or Cu conductor PVC insulated wires of adequate rating. All the internal connection shall be concealed by providing a hinged protective panel to avoid accidental contact with live points. All outgoing equipment shall be concealed direct to the bus bar on the live side. The equipment shall be mounted on a frame work for easy removal and maintenance. The sheet steel work shall undergo a rigorous rust proofing process, two coats of filter oxide primer and final powder coated paint finish. All the circuit shall have an independent neutral insulated wire, one per circuit, and shall be numbered and marked as required by the Engineer –in-charge. A sample of the completed board is to be got approved by the Engineer-in-charge before commencement of supply and erection.

SHEET STEEL TREATMENT AND PAINTING

Sheet steel materials used in the construction of these units should have undergone a rigorous rust proofing process comprising of alkaline degreasing, de-scaling in dilute sulphuric acid and recognized phosphate process. The steel work shall receive two coats of oxide filler primer before final painting. All the sheet steel shall after metal treatment is given powder coating finish painted with two coats of shade 692 of IS-5 on the outside and white in the inside. Each coat of the paint shall be **properly stove** and paint thickness shall not be less than 50 micron.

NAME PLATES AND LEBELS

Suitable engraved white on black nameplate and identification labels of metal for all switch board shall be provided. These shall indicate the feeder no. and feeder designation.

5.0 MEDIUM VOLTAGE SWITCHBOARD

Specifications for switchboard will be as per enclosed **ES :8060**

6.0 ADDRESABLE FIRE ALARM DETECTION SYSTEM

Supply, installation& commissioning of addressable low-profile photoelectric smoke detector with base(make Honeywell or equivalent as per direction of EIC), low-profile photoelectric heat detector with base(make Honeywell or equivalent as per direction of EIC), addressable manual call point(make Honeywell or equivalent as per direction of EIC), addressable loop isolation module(make Honeywell or equivalent as per direction of EIC), addressable intelligent wall mounted strobe cum sound recorder of (make Honeywell or equivalent as per direction of EIC), supply of necessary 2x1.5 sqm (should FR type & make of polycab or equivalent) cable for wiring of necessary sensing device to the addressable standalone fire alarm control panel with adequate size PVC casing/pipe with all sort of fixing materials and accessories required to complete this job in all respect. Supply , installation & commissioning of addressable stand alone fire alarm control panel, 198 points (99 detectors & 99 devices), intelligent 80- character LCD display with backlighting , detector sensitivity test capability (NFPA 72 coplaint) history file with 1000- event capacity with facility of maintenance alert. Entire system should be integrated with existing system and commissioning to be done in all respect.

Wiring for fire detection and alarm system shall comprise of connecting main fire alarm system in existing fire station building with fire alarm and annunciation panel in the renovated canteen building, complete wiring for smoke detectors , heat detectors, response indicators, manual call points, electronic hooters etc. inside the building including supply, erection , installation , testing and commissioning the system. Incoming supply from main fire alarm panel to 10 zone fire alarm and annunciation panel in the canteen building should be done with 6 core X 2.5 sq.mm. PVC insulated armoured Cu cable. Internal wiring for fire detection system inside the new building shall be done with 2 C X 1.5 sq.mm. PVC insulated Cu wire laid in Heavy duty 16 SWG MS conduits. This wiring shall include interconnection of smoke detectors, heat detectors response indicators manual call points, electronic hooters and 10 zone fire alarm panel. Smoke detectors shall be Ionisation type complete with LED indicators and mounting base. Heat detector shall be ROR cum fixed temperature type with LED indicator complete with mounting base. Response indicators shall be with Red LEDs and complete with MS housing and anodized Aluminium cover plate etc. Manual call points shall be of glass break type complete with MS housing, Hammer and chain arrangement. Electronic hooters shall be dual tone type. Fire alarm and annunciation panel shall be 10 zone type panel with window type annunciation to indicate fire and fault through suitable indicator, audio alarm unit complete with push buttons for acknowledge / test / reset with main power supply block backed
by 24 V 60 AH battery backup including built in battery charger. Complete installation shall be done as shown in the GA drawing.
The Fire detection & Alarm System shall be a system comprising of automatic sensor e.g. smoke & heat detectors, main panel, zonal panel, hooter, battery charger and other hardware. The system shall be designed to provide audio-visual indication at the main panel to be located in fire station and zonal panel in control rooms.

Electrical siren shall be provided to cover entire plant area.

Hooters and exit lights shall be provided at required location in the buildings.

Panel design and component selection shall be done for future extension up to 10% of specified zone or one zone, whichever is maximum in each panel. The design of common facility and hardware shall be provided for future extension of zones.

Annunciation with accept/reset push button is to be provided in control room/panel.
Area wise grouping shall be done in parallel connection of each smoke detector contacts of particular.
It should meet with standard fire code of the India.
Fire alarm system employing intrinsically safe circuit and shall operate a 24 V DC supply.

8.0 EARTHING

General
All non-current carrying metal parts of electrical installation shall be earthed properly. All metal conduits, trunking,cable sheaths,switchgears,distribution fuse boards, light fittings and all other parts made of metal shall be bonded together and connected by means of specified earthing conductors to an efficient earthing system. All earthing shall be in conformity with Indian Electricity Rules.
The earthing system shall comprise of-
a)Earth electrode
b)Earthing leads
c)earth conductor
All three-phase equipment shall have two separate and distinct body earth and single phase equipment shall have single body earth.

EARTHING MATERIAL

Materials of which the protective system is composed shall be resistant to corrosion or be adequately protected against corrosion. The material shall be as specified in the schedule of quantities and shall comply with the following requirements:
1. Copper – When solid or stranded copper wire is used it shall be of the grade ordinarily required for commercial electrical work generally designated as being of 98% conductivity when annealed, conforming to Indian standard specifications.
2. Galvanised Steel – Galvanised steel used shall be thoroughly protected against corrosion by hot dipped Zinc coating. The material coating shall withstand the test specified in IS2309: 1969.
3. The strips to be used shall be in maximum lengths available as manufactured normally avoiding unnecessary joints.

EARTHING CONDUCTORS

Earthing conductors shall form the earthing network throughout the installation for earthing of all non-carrying metal parts.

CONNECTION OF EARTHING CONDUCTORS

Main earthing conductors shall be taken from the earth connections at the main switch boards to all distribution boards in the network.
Metal conduits, cable sheathing and armouring shall be earthed at the ends adjacent to switch boards at which they originate, or otherwise at the commencement of run by an earthing conductor in effective electrical contact with cable sheathing, Switches, accessories, lighting fitting etc. shall be effectively connected to the loop Earthing conductors. These through rigidly secured in effective electrical contact with a run of metallic conduit shall not be considered earthed, even though the run of metallic conduit is earthed.

EARTHING CURRENT INSTALLATION

The earthing conductors inside the building wherever exposed shall be properly protected from mechanical injury by running the same in GI pipe of adequate size.
Joints shall be reverted and brazed in approved manner.
Sweated lugs of adequate size shall be used for termination. Lugs shall be bolted to the equipment body to be earthed after the metal body is cleaned of paint and other only substances and properly tinned.

PROHIBITED CONNECTION

Neutral conductor, pipes conveying water, gas or inflammable liquid, structural steel work, metallic enclosures, metallic conduits and lighting protection system conductors shall not be used as a means of earthing an installation or even as a link in an earthing system.
RESISTANCE TO EARTH
No earth electrode shall have a greater ohmic resistance 3ohms as measured by an approved earth testing apparatus. In rocky soil, the resistance may be up to 1 ohm. The electrical resistance measured between earth connection at the main switch board and any other point on the completed installation shall be low enough to permit the passage of current necessary to operate fuses or circuit breakers and shall not exceed 1 ohm.

9.0 ROUTING AND COMPLETION TESTS

INSTALLATION COMPLETION TESTS
At the completion of the work, the entire installation shall be subject to the following tests—

1. Wiring continuity test
2. IR test
3. Earth continuity test
4. Earth resistivity test

Besides the above any other test specified by the local authority shall be carried out. All tested and calibrated instruments for testing, labour, materials and incidentals necessary to conduct the above tests shall be provided by the contractor at his own costs.

Wiring Continuity Test
All wiring systems shall be tested for continuity of circuits, short circuits and earthing after wiring is completed and before installation is energized.

Insulation Resistance Test
The insulation resistance shall be measured between earth and the whole system conductors, or any section thereof with all fuses in place and all switches closed and except in concentric wiring all lamps in position of both poles of the installation otherwise electrically connected together, a direct current pressure of not less than twice the working pressure provided that it does not exceed 660 volts for medium voltage circuits. Where the supply is derived from AC three phase system, the neutral pole of which is connected to earth, either direct or through added resistance, pressure shall be deemed to be that which is maintained between the phase conductor and the neutral. The insulation resistance measured as above shall not be less than 50 megohms divided by the number of points provided on the circuit the whole installation shall not have an insulation resistance lower than one megohm.

The insulation resistance shall also be measured between all conductors connected to one phase conductor of the supply and shall be carried out after removing all metallic connections between the two poles of the installation and in those circumstances the insulation shall not be less than that specified above.

The insulation resistance between the frame work of housing of power appliances and all live parts of each appliance shall not be less than that specified in the relevant Standard specification or where there is no such specification, shall not be less than half a megohm or when PVC insulated cables are used for wiring 12.5 megohms divided by the number of outlets. Where a whole installation is being tested a lower value than that given by the above formula subject to minimum of 1 Megohms is acceptable.

Testing of Earth Continuity Path

The earth continuity conductor including metal conduits and metallic envelopes of cable in all cases shall be tested for electric continuity and the electrical resistance of the same alongwith the earthing lead but excluding any added resistance of earth leakage circuit breaker measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one ohm.

Testing of Polarity of non-linked Single Pole Switches

In a two-wire installation, a test shall be made to verify that all non-linked single pole switches have been connected to the same conductor throughout, and such conductor shall be labeled or marked for connection to an outer or phase conductor or to the non-earthed conductor of the supply. In the three of four-wire installation, a test shall be made to verify that every non-linked single pole switch is fitted to one of the outer or phase conductor of the supply. The entire electrical installation shall be subject to the final acceptance of the Engineer-in-charge as well as the local authorities.

Earth Resistivity Test

Earth resistivity test shall be carried out in accordance with IS Code of Practice for earthing IS 3043.

Performance

Should the above tests not comply with the limits and requirements as above the contractor shall rectify the faults until the required results are obtained. The conductor shall be responsible for providing the necessary instruments and subsidiary earths for carrying out the tests. The above tests are to be carried out by the contractor without any extra charge.

Tests and Test Reports

The contractor shall furnish test reports and preliminary drawings for the equipment to the Engineer-in-charge for approval before commencing supply of the equipment. The Contractor should intimate with the tender the equipment intended to be supplied with its technical particulars. Any test certificates etc., required by the local Inspectors or any other Authorities would be supplied by the Contractor without any extra charge.

10.0 <u>LICENCED SUPERVISOR AND WORKMAN</u> :

It is obligatory under the IE Rules that all electrical installation works shall be executed under qualified electrical Supervisor holding Electrical Supervisor's Certificate of Competency, granted by the State Licensing Board. The Contractor will decide in consultation with the Engineer-in-Charge on the number of Electrical Licensed Supervisors to be engaged on the job. If the volume of work is such that it requires more than one such supervisor, and than employ such number.

The Contractor may employ artisans and wiremen but must also have sufficient number of highly skilled licensed electricians and workmen for the installation of switch fuses, distribution board, HT & LT switch gears, under ground cable work etc.

The Contractor will remove any such workmen from the site of work who in the opinion of the Site Engineer is not sufficiently efficient or otherwise unsuitable for any reason whatsoever, upon receipt of intimation in writing by Engineer-in-Charge. The decision of Engineer-in-Charge shall be final.

11.0 INFORMATION TO BE FURNISHED BY TENDERER:

The tenderer shall furnish the following information along with the tender:

1. Contractor's License Number and next date of renewal. :
2. Name of Electrical Supervisor with registration Number. :
3. Parts in which Electrical supervisor's certificate of Company has been issued by the Licensing Board. :
4. Next Date of renewal of supervisor's certificate. :

The owner in case the above information is not furnished may reject the tender without assigning any reason whatsoever.

12.0 TEST REPORT AND BILLS:

Within 15 days from the date of completion of prior to the date of final measurement of work, whichever is earlier the Contractor will furnish the installation test report, of which all tests must be carried out in presence of the Site Engineer and Contractor's Supervisor and signed by both of them. First and final bill shall not be paid to the Contractor unless a complete and satisfactory test report is received by the Engineer-in-Charge on the installation.

13.0 TESTING AND COMMISSIONING OF INSTALLATION:

After satisfactory completion of the job, the contractor should apply to the AT&T or networking Contractor of IOCL for approving the networking work. The owner will assist the Contractor for get the installation approved before commissioning the installation.

14.0 COMPLETION TEST:

On completion of wiring (or an extension to an installation) a certificate will be furnished by the Contractor in a prescribed from duly signed by the certified supervisor under whose direct supervision of the installation was carried out. The certificate will obtain the following main points.

a) Continuity test for each circuit.
b) Physical verification for ferruling, numbering and no damage.
c) Megger value of all cables, circuits etc.
d) Earth resistance value of earth stations.
e) Any other routine test specified by the engineer in charge.

The contractor will be supplied with one copy of the drawing. On completion of the work, he will submit the drawing therein:

a) Circuit routes and points.
b) Schedule of wires.
c) DB details.
d) Schedule of DBs.
e) All drawing as required by the Engineer in charge after completion.

Part- D
Approved Make List
SCHEDULE OF APPROVED MAKE FOR AIIMS, PATNA

All material specified in this tender document must confirm to the brand name and be of the first quality. Samples of all materials to be used must be submitted and got approved from the Engineer in charge before procurement and use.

CIVIL & INTERIOR WORKS

SL NO.	MATERIAL	BRAND NAME
1	Cement	ACC/ Ultratech/ Lafarze /Prisim / Birla Crop Ltd.
2	TMT Bars	Tiscon, Elegant, SRMB Sail/ RINL
3	Flush Doors	GREENPLY, CENTURY,MERINO, Green lam
4	Plywood (HPL)	Greenply, Century , Green lam, MERINO
5	Decorative Plywood vineer	True wood, Archid, Green decowood, Century, Mayur , Merino
6	Laminate	Formica, Sumnica, Century , Green lam, Silicon, Merino
7	Locks	Godrej , Hettich, Hafelle, Ozone,
8	Aluminum Sections	INDAL, Hindalco
9	Floor spring	Hardwyn, Ozone, Garnish, Godrej/ Everite
10	White Cement	Birla White, JK
11	Glass, Mirror	Pilkington, Saint Gobain, Modi
12	Acrylic Emulsion Paint	ICI , Asian paint , Berger, Nerolac
13	Cement primer	Berger, ICI
14	Enamel Paint	ICI, Berger, Asian paint/ Nerolac
15	Ceramic Tiles	Nitco, Somany, Kajaria, Orient
16	Waterproofing Compound	Sika, Laticrete
17	Gypboard False ceiling	SAINT GOBAIN / USG BORAL/ Arm Strong/ Gypsum false ceiling gypsum India Ltd/ Bearl Gypsum, India gypsum Laffarge
18	Mineral Fiber Board False Ceiling	Arrmstrong/ USG Boral/ India Gypsum
19	Acoustic Wall Panel	Armstrong / Anuton
20	Laminated Wooden Wall Panel	Armstrong / Anuton
21	Perforated Gypboard Wall Panel	Saint Gobain / USG Boral/ India Gypsum
22	Solid Wooden Flooring	Square Foot/ Pergo/Armstrong
23	Glass Mosaic Tiles	Italia, Bisaza/ Mridul /Birazza/ Pace India
24	Adhesive	Sika, pidilite or approved equivalent
25	Carpet	Barber point / Piccolo
26	Urinary Modesty Panels angular	Greenply, Century , Green lam, MERINO
27	BESCO cubical ZMS black	Greenply, Century , Green lam, MERINO
28	Ceramic/ Glazed Ties	Kajaria/Somany/Nitco/AGL/Jhonson
29	White Cement	ACC, Birla, J.K White
30	Vitrified / Digital Glazed Vitrified Floor Tiles (DGVT)	AGL, Nitco, Rak, Kajaria, Somany, Jhonson
31	Tile Fixer/ Adhesive /Epoxy/ grouts	Fosroc,CICO,Sika, Pidilite, Balendura, Letecret, Hindcon chemical Ltd.
32	Water Proofing Compound	Fosroc, Kika, Pidilite, CICO, Impermo, HIndcon Chemical Ltd.
33	Paint/ Primer	1st Quality Paints of Berger, Neroloac, Asian, ICI
34	Acrylic Exterior Paint	APEX Ultima, Weather coat all guard, Weather Shield Max
35	Cement Based Wall Putty	JK/Birla/Sara
36	Sanitary fittings & Accessories	Hindware, Parryware, Cera, nycer, Jaquar
		Page No. 1

37	C.I. Manholes Frame & Covers & C.I. Grating	NECO, RIF, SKF,BIC
38	Ball Valves	Zoloto, Leader, Castle, Kalpona, Kirloskar
39	Mirror	MODI Guard, Saint-Gobain
40	Stainless Steel Door Handles, Locks/ Latches & Fittings	Dorset, Godrej, Harrision, Plaza, Yale, Dorma, Ozone, Geze
41	Stainless Steel Pipes & Fittings	Sail, Jindal, Tata, (TISCO), Salim
42	Aluminium Section	Hindalco, Jindal, Indal
43	Steel fire Rated Door Shutter	Sukri, Shakti-Met, Navair, Adhunik
44	Fasteners	Skippter, HR Steel Industries, Royal Balaji, Howrah
45	P.T.M.T Bath Accessories	Prayag, Shakti
46	Pre- Painted Galvanised Iron Sheet (PPGI)	TATA,- Bluescope, Bhushan Power & Steel
47	MS ERW Pipe	Bhushan Power& Steel, Jindal

ELECTRICAL ITEMS:

SL No.	MATERIAL	BRAND NAME
1	MS. Conduit ERW(ISI)	AKG,BEC,ICI
2	Wires	Finolex, Havels, KDK
3	Switches Sockets	Anchor Roma, Crabtree, MK , Legrand/ Parasonic / Northwest/ Havells/ CLIPSAL/ MK/ Scheinder
4	H.T cables	Nicco, Havels, Polycab
5	Light Fittings	Philips/ WIPRO/Syska
6	Distribution Boards	Havels, MK, Legrand/ L&T/ Legarnd/ Siemens/ Scheinder
7	Lamps	Philips, Osram, Hettich, Syska
8	MCB , MCCB	Havels, MK, Legrand/ L&T/ Legrand /Scheinder/ ABB/ Siemens

LIGHT FITTINGS

SL NO.	MATERIAL	BRAND NAME
1	Led Downlight Light 28W, 4000K/5000K, Dimmable, 8"	Philips/Havells/Wipro/SYSKA LED/Lighting Technologies India Pvt. Ltd.
2	Led Downlight Light 15W Square, 6"-15" 6.5K	Philips/Havells/Wipro/SYSKA LED/Lighting Technologies India Pvt. Ltd.
3	Led Downlight Light 14W, 4000K/5000K, Dimmable	Philips/Havells/Wipro/SYSKA LED/Lighting Technologies India Pvt. Ltd.
4	LED Strip Light, 3000k / 6000k / R/G/B IP65	Philips/Havells/Wipro/SYSKA LED/Lighting Technologies India Pvt. Ltd .
5	6CH 2A New Leading Edge Dimmer.	Philips/Havells/Lighting Technologies India Pvt. Ltd.
6	48 Channels DMX scene Controller	Philips/Havells/Lighting Technologies India Pvt. Ltd.
7	3CH 650Ma LED Driver	Philips/Havells/Lighting Technologies India Pvt. Ltd.
8	1 Port Programming Gateway.	Philips/Havells/Lighting Technologies India Pvt. Ltd
9	Logic Automation Module	Philips/Havells/Lighting Technologies India Pvt. Ltd.
10	TP+N type surge protector=SPD Euro-2	Philips/Havells/Lighting Technologies India Pvt. Ltd.
11	DLP Panel.	Philips/Havells/Lighting Technologies India Pvt. Ltd.
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12	panel Power Interface EU	Philips/Havells/Lighting Technologies India Pvt. Ltd.
13	Mount Front End Devices with Panel Power Interface	Philips/Havells/Lighting Technologies India Pvt. Ltd.
14	25A "C" Series Dipole MCB	Philips/Havells/Lighting Technologies India Pvt. Ltd.
15	750mA power supply module	Philips/Havells/Lighting Technologies India Pvt. Ltd.
16	44M Distribution Board	Philips/Havells/Lighting Technologies India Pvt. Ltd.
17	Output 10-30V DC Current 5A DC of SMPS	Philips/Havells/Lighting Technologies India Pvt. Ltd.

FIRE FIGHTING

SL NO.	MATERIAL	BRAND NAME
1	Single-ended Reflected Type Beam Smoke Detector with mounting kit. (M-Beam1224)	System Sensor / Apollo/ GST
2	Break glass type manual call box with all accessories.	Agni / Reavel/ System Sensor
3	Electronics hooter with all accessories.	Agni / Reavel/ System Sensor
4	02 Zone Conventional Fire panel with display & standard battery backup	Agni / Reavel/ System Sensor
5	2 x 1.5 mm2 FRLS copper Armoured	Havels/Nicco / Polycab
6	ABC type Fire Extinguisher refilling with ISI Marked ABC powder Cap. 6 kg.	Safeguard / Safepro Fire/ Guards

HVAC ITEMS:

Sl No	Detail of Equipment / Material	Make/Manufacturer
1	Propeller Fans	Crompton/ Khaitan/ Alstom/ Bajaj/GE
2	Thermostat /Humidistat	Honeywell / Johnson / Siemens /Schneider
3	Purge Valve/ Drain Valve	Audco/Advance / Anergy/Zoloto
4	PVC /uPVC pipe	Polypack/Supreme/Astral/Finolex
5	Room Thermostat	Honeywell/ Johnson/ Siemens/ Schneider
6	Laminar Flow HEPA tent	Systemair/TROX/American Air Filter/ Conaire/ Thermadyne/ Airtech
7	Expanded Polystyrene Insulation	Styrene Packing/Mettur Beardsell/ Toshiba/Trocellin/ Thermobreak
8	XLPE Insulation	Supreme/ Vidoflex/ Trocellene
9	Nitrile Rubber /EPDM Insulation with antimicrobial	K-Flex/Superlon/Armacell/Supreme

10	Polyurethane Foam (PUF) Insulation	Styrene Packaging & Insulations/Lloyd Insulations/Supreme
11	Pre insulated Ducts	Pal/Zeco/ ALP/ Kingspan/ Spiro / UP Twiga
12	Inline Fans	Kruger / Nicotra/ Greenheck/ Ostberg
13	Humidifier	KEPL / Rapid cool/ Emerald /Enmax
14	GI/ MS Piping (chilled/condenser/drain/hot)	Jindal-Hissar/TATA/SAIL
15	Flexible Duct Connection	Airflow/Pyroguard / Rolastar/ UP Twiga
16	Fire Damper Actuator	Belimo/Siemens/Danfoss/Honeywell
17	Fire Dampers / Smoke Dampers	Trox/ Greenheck/Ruskin Titus/Systemair
18	Filters -Pre/ Fine/ Hepa & BIBO	Thermadyne / Spectrum/ Camfil/ American Air Filter
19	Fan Coil Units with Fans	VTS/Flaktwood/Daikin/Carrier/Johnson Control
20	Factory Fabricated Duct & Flanges	Rolastar / Zeco / Ductofab / Technofab/GPS Spiro
21	Duct Dampers/ Grills/ Diffuser/ VCD/ Collar Damper etc.	Caryaire / Systemair/ Conaire/ Dynacraft /Airflow
22	Aluminium Sheet for Ducts	Jindal/ Hindalco/ Indal
23	Axial Flow Fans	Kruger / Systemair /Greenheck/ Wolter/Nicotra
24	Air Distribution (Ducting) - GI/GSS Sheets	SAIL / TATA Steel/ Jindal-Hissar
25	Air Handling Units with Coils etc.	Zeco/ Edgetech/VTS/ Waves/Flaktwood
26	Adhesives for Insulation	Pidilite/Superlon / Armacell

SCHEDULE- E

SCOPE OF WORK FOR CAMC, Operation and Maintenance of Substations (1,2,5&6) at AIIMS Patna.

Scope of Work

The Contractor/ vender shall have to Execute following Work round the year 24x7.

Providing Comprehensive Operation and Maintenance of contract for Substations (all equipment, VCB (HT Panel) , ACB (LT Panel),MCCBs, DG sets with main LT panels cum AMF panels, and rising mains, LT floor panels & all other electrical installation at the AIIMS Patna covered under Package 3 (ELECTRICAL SERVICES).

Scope of works also includes liaison with SBPDCL regarding 33 KV Feeder Power connection to AIIMS HOSPITAL complex so as to ensure uniform power supply.

All the equipment/installations shall always be kept in good and trouble free operating conditions.
All the required record for break-downs/repairs and maintenance etc. shall be maintained in the form of history books and logbooks etc. as per directions.

All the maintenance works shall be carried out in accordance with the manufacturer's specifications and instructions of the engineer in charge. The brief of main activities to be carried out for operation, routine/special & preventive and comprehensive maintenances per clause of special terms and conditions.

If for any reason any equipment is required to be repaired from any outside agency or in any workshop, the same shall be arranged by the agency at his own cost with in the quoted prices.

SPECIAL TERMS AND CONDITIONS:

BROAD DESCRIPTION OF COMPLETE SYSTEM INSTALLED AT M/S AIIMS Patna covered under the contract Package 3 (ELECTRICAL SERVICES)

1.0.Details of substations, DG sets with main LT panels cum AMF panels, VCB , ACB, MCCB, rising mains, LT floor panels & all other electrical installations for Hospital Complex.

2.0 Bidders are advised to visit the site for verification of complete system. Variation in quantities of equipment's w.r.t as given above is likely to occur as per AIIMS Patna requirement and during the period of Contract.

3.0 DETAILED SCOPE OF WORK:

The scope of work as mentioned below are the minimum expected from the firm / agency / contractor apart from break down maintenance and any other work required for operation and maintenance in proper way as per the operation and maintenance manuals of respective equipment and as per good engineering practices will be required to be done under this scope of work. Successful bidder will make Performa for recording the following minimum work schedule/parameters and show to the employer to ensure proper accomplishment of these tasks.

3. (A). WORK TO BE DONE ON EVERY DAY BASIS.

i. To check the healthiness of all the electrical installations e.g. DG Sets, Transformers, Main LT panels ,sub panels, Rising Mains, HT and LT Cables, Rising Mains, FSB etc. and to take necessary action if found unhealthy.

ii. Checking the yard at periodic intervals and attend to any unusual observations, defects, sparks, loose contacts, red hot spots and loose bolts and nuts etc., and informing the concerned authority. The records of operational persons shall also be consulted for this purpose.

iii. To monitor & record the incoming supply parameters, make necessary tap to in changing to maintain the voltage in limits, maintain the power factor at not less than 0.95 lagging by switching the capacitor banks, to keep the maximum demand within prescribed limits etc.

iv. To check earth pits pertaining to all equipment's, systems and buildings etc. Watering them as and when required and testing their earth resistance etc.

v. Recording/Maintain a register for Parameters of all equipment installed at Substation daily with signature.

vi. Recording in the DG Set Log Book Live stock of HSD daily with signature

vii. Maintain a register for Recording complaints and attending the same with date ,time & signature .

viii. Any other work required for the equipment for proper functioning.

3.(B). WORK TO BE DONE ON WEEKLY BASIS :

- Attend the equipment complaints which are not sorted out during daily maintenance.
- To cleaning/tightening of loose contacts of HT and LT panels, DBs if so required .
- Change/cleaning of power/control cables etc. as required.
- Record all the major events in the history Register for DG Sets, Transformer, AMF panel, BUS BAR and Circuit breakers for their maintenance , faults and other characteristics shown during their operation .
- Any other work required for the equipment for proper functioning such checking of temperature/moisture time to time.
- To check electrical circuits and rectify faults as and when necessary.

3(C) . WORK TO BE DONE ON MONTHLY BASIS :

- To check healthiness of Transformer and other electrical installation like VCBs as per their OEM schedule and taking necessary action.
- Maintenance of DG sets and other electrical installation as per their OEM schedule.
- To check the electrical load on each feeders and change over the load on other transformer or feeder periodically.
- Lubricating / Greasing all moving parts of OLTC/VCB/ACB etc. mechanism.
- Checking and recording or IR values of all cables with megger of suitable range if the concerned feeder cable is idle for more than one month.
- To check the solenoid valve, safety controls Mechanical, Electrical / Electronics and inter – locking of the various equipment like VCB ,ACB etc.
- To check healthiness of 33 KV MRS Switchyard and do maintenance as required.

3(D). WORK TO BE DONE AFTER EVERY THREE MONTH.

- Maintenance of Transformer, VCB, ACB, SCADA Panels, DG sets and other electrical installation as per their OEM schedule.
- To check and lubricant (if required) the bearing of the pumps/motors/DG and keep the proper record of all items like coolant, lubricant, diesel, Transformer Oil,silica gel and other accessories .
- The check the foundation bolts of the pumps / motors/DG and to take the necessary action if required.
- Check the I.R. value of each Current/Potential Transformer and keep record.
- To check earthing resistance, insulation resistance and Breakdown voltage of all equipements including HT and LT cables, Transformer Oil etc. as applicable and Submit the test report/observation as per instruction or CPWD/CPRI norms.

3(E). MAJOR MAINTENANCE.

- To test the oil samples of transformers and to give suggestions for dehydration of oil if required.
- Replacing of Buchholz relay, OTI, WTI, breather, HT or LT Bushing etc. if found malfunctioning.
- servicing of ACB, VCB, all relay, calibration of meters and providing report for the same.
- Replacement of Lightening Arrestor pole.
- Any other electrical works as assigned by the engineer in charge essentially required for keeping the equipment's in good healthy working conditions though not indicated above.
- All the maintenance activities shall be carried out by following all the safety measures using required PPE equipment. The contractor will be only responsible for any mishap due to unsafe act / practice.
- Major Maintenance of DG sets , Sub Station and other electrical installation as per their OEM schedule.
- Record all the major events in the history Register for DG Sets, Transformer, AMF panel, BUS BAR and Circuit breakers for their maintenance , faults and other characteristics shown during their operation .
- The check the foundation bolts of the pumps / motors and to take the necessary action if required.
- All the equipment/installation shall always be kept in good and trouble free operating conditions. All the required record for break-downs/repairs and maintenance etc. shall be maintained in the form of history books and logbooks etc. as per directions. All the maintenance works shall be carried out in accordance with the manufacturer's specifications and instructions of the engineer in charge.

4. TOOLS & PLANTS

All the general & special tools, tackles i/c chain pully blocks etc., required for proper maintenance and repairs/break down etc, shall be arranged by the contractor at his own cost and issued to the staff deployed by him for this work.

5. CONSUMABLES

The rates shall be all inclusive of establishment as well as spares and consumables as per schedule of work. The contractor is required to assess the probable quantity of all types of spares and consumables likely to be required for replacement for keeping all the installations in good working conditions and include the lump sum cost of these spares & consumables.

Nothing extra on any account shall be payable over and above the approved all-inclusive comprehensive rates of the contract.

Scope of works also includes liaison with SBPDCL regarding 33KV Feeder Power connection to AIIMS Main complex Patna so as to ensure uniform power supply.

The work shall be generally carried out as per CPWD specifications for Electrical works and as per the norms set by the manufacturers of respective equipments, specifications and specific instructions as may be issued by the AIIMS Patna Engineer in charge responsible for work from time to time.

Brief description of maintenance activities generally carried out as mentioned

All the electrical equipment's/installations shall be always kept in good healthy conditions.

The consumables and spares shall be of best standard quality purchased from the original manufactures or authorized dealers only and shall be shown to the Engineer in-charge of AIIMS Patna before use.

The dismantled/replaced parts whenever replaced shall be property of contractor and have to dispose off as early as possible.

All spares and consumables such insulation tape, washing detergent, cotton for cleaning, CTC, DC 2-26 etc. shall be arranged by the contractor for which nothing extra shall be payable.

Log book and complaint books, all stationery like registers, sheets, markers, pens and pencils etc. will be supplied by the contractor and no extra payment for these shall be made. Log book Performa must be approved by AIIMS Patna Engineer- in- charge. Engineer-Incharge means person appointment to look after the CAMC contract activities.

To arrange for a well-equipped first-aid box and maintain it in a healthy condition to take care of first aid for any eventualities of their workman at site.

SUB-STATION

Part I: Scope of Maintenance:

1. Ensuring that H.T. Panel, Transformer, LT panels, Capacitor panels and outdoor structure as well as connecting cables/ducts, constituting the substation are maintained in healthy & clean conditions.
2. Monitoring on continuous basis power factor & peak load and ensuring that these are maintained within limits to avoid penalty.
3. To perform maintenance tasks as per schedule given in part III.
4. To ensure continuous power supply and in case of break down take steps to ensure restoration at the earliest.

Part II :Tasks To Be Performed Within First 15 days.

1. Identify a person(s) with necessary competence to be responsible for sub- station maintenance.

The person(s) deputed for sub-station job should.

i) Know how to treat the persons suffering from electric shock/burn etc.
ii) Be able to operate fire extinguisher.
iii) Make himself familiar with the distribution scheme, the switches, controlling various loads and also importance thereof. Clearly understand what is to be done in case of an emergency. This should be done in consultation with Engineer In charge.

2. Carry out general inspection with a view to identity short coming if any in the sub-station Installation.
3. Check all the switches & meters for proper operation.
4. Check availability and working of fire extinguishers at earmarked locations.
5. Check operation and calibration of all the safety devices like relays and fuses.
6. Check the earthing system for the proper earth values & continuity of earthing system.
7. Check insulation value of oil in all the equipments.
8. Carry out megger test.
9. Check oil level in all the equipments to ensure proper levels.
10. Check power factor meter, maximum demand meter for proper functioning.
11. Check all the Electrical connections for proper tightness.

All result of above inspection to be recorded and brought to the notice of Engineer- in –charge specially highlighting short comings for necessary action.

Part III: Maintenance Schedule to Be followed

Daily Checks

Check all the equipments installed in the Sub-station for

1. Any abnormal heating /smell / noise
2. Check for any breakage/oil leakage in the equipment installed
3. Any inflammable materials like oil, broken furniture, packing etc. are stored in the sub-station. If fire hazardous material stored it has to be removed immediately.
4. In case of outdoor installation inspect for any abnormality.
5. Record various readings in the log-book (Annexure –4).
6. Ensure that the HT tripping circuit is in working condition.

7. Check power and maximum demand meters to ensure that the values are within permissible limit. Ensure that the capacitor panel is in working order. Any penalty on account of power factor/Maximum demand shall be made up by the firm.
8. D.C. voltage in case of indoor substation.
9. Ensure that only one transformer works at a time (in case 100% standby capacity is available) & is alternated monthly. The other transformer shall be kept off.

Note: If anything adverse is noticed during the daily check the matter will be reported to the engineer in charge and wherever necessary corrective measures required should be taken immediately.

Monthly

1. Check for tightness of connections in all the panels.
2. Check the tripping of the HT panel i/c batteries etc. for proper functioning.
3. Watering of earth pits and tightening of connections.
4. Check capacitor panel for proper functioning.
5. The colour silica gel in the breather attached to the transformer. Colour should be blue.
6. Check for proper working of all the measuring instruments.
7. Check for electromechanical interlocking.
8. Check all relays, NO VOLT/ shunt Trip, IDMT Tripping for proper functioning.

Quarterly

1. Toping up of insulation oil in the equipment installed up to marked level
2. Check HT tripping circuit for proper functioning
3. In case of outdoor installation check operation of GOS
4. Checking& cleaning of insulators
5. Checking and cleaning of lighting arrestors.
6. Checking & cleaning of drop out fuses.

Half yearly:

1. Oil testing.
2. Earthing systems check.
3. Relays and other protection Devices working.
4. Insulation measurement of the system.
5. ON/OFF operation of all switches including cleaning and lubricating of operating mechanism wherever required, particularly in case of out-door installation.
6. Cleaning of HT/LT OCB/ACB/ other switchgears contacts & tightening of connections.

NOTE:- 1. If anything adverse is noticed during the daily check, the matter shall be reported to the Engineer-in-charge and wherever necessary corrective measures should be taken immediately.

Yearly:

1. Calibration of IDMT relays through M&T division.

Bi-annual

1. Painting & sign writing of Pole structure, fencing, Outdoor Transformers & Feeder pillars. (Within Two months of taking over).

2. Renovation of Earthling Chambers. (Within Two months of taking over).
3. Dehydration and filtration of insulating oil in all the equipment upto standard value.

Note:- 1.Dehydration and filtration of insulating oil shall be done once in two year. However if the insulation values found during the testing is below than required value then it shall be done.

Testing Detailed Testing of the installation shall be done once in a year to find out capacity and efficiency of various equipment with respect to their rating as per relevant I.S. The testing procedure shall be same as adopted at the time of original testing.

Notes –

1. In case of any change in outgoing cables, sign writing to be updated accordingly.
2. The attendants shall check respective items daily as per the checklist. This shall be checked by JE(E)/AE(E) once in 15 days.
3. Specified numbers of periodic activities shall be performed directly under the supervision of JE(E)/AE(E) and certificate to this effect in the form of Test Check Statement shall be submitted along with each Bill.

Part-IV: Material

All the materials required for carrying out maintenance with the exception of following shall be arranged by the contractor at his own cost.

1. Replacement of complete transformers/H.T. panel/L.T. panel/Capacitor panel..
2. The replacement of the cable. However any break down , burning in the end terminations of cable, or cable faults at joints, etc are to be attended by the firm without any extra payment.
3. Replacement of metering units, CT, PT, Relay and all other accessories under custody /jurisdiction of Supply Company. However providing of DO fuse, painting of structure / fencing, providing metal granules, maintenance of earth stations shall be the responsibility of the contractor.
4. Complete Replacement of Transformer oil.
5. Replacement of Rubber matting.

The contract is for the comprehensive maintenance as such the firm shall arrange all materials at his own cost including Rewinding of Transformers replacement of ACB'S &MCCB's.

Note:-

1. Capacitors for PF improvement to be checked with respect to its rated current if it falls by 30% of rated then replacement is to be done by the agency if found under rated.
2. The replacement of material shall be with the same rating and make as that of the original. However, in case of non-availability of a particular make, the Engineer-in-charge will approve the alternate make.
3. Failing to maintain sufficient spare items as per requirement and instruction by Engineer – In – Charge for each substation , the agency will be liable to pay penalty up to 50 % of that substation bill as decided by engineer- in- charge and recommendation of J.E/ A.E.