

TENDER DOCUMENT

NAME of Work:- Raising height and reconstruction of a damaged portion of the outer boundary wall Campus of Indian Institute of Management, Rohtak at Sunaria Village, Rohtak.



Tender Document Fee: Rs. 5,900/- (Rupees Five Thousand Nine Hundred only)

Date of submission of Tender: 28.02.2023, upto 12:00 Hrs

Date of opening of Eligibility Documents: 28.02.2023 at 14:00 Hrs

Indian Institute of Management Rohtak
at Sunaria Village, Rohtak (Haryana)

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Note: No paper or copy of the tender document, eligibility documents, Tender Processing Fee and EMD is to be submitted or sent to the Institute. All documents shall be accepted which are received through online only.

IIM ROHTAK

NOTICE INVITING TENDER

N.I.T. No.	IIMR/CIVIL/2022-23/OTE/P-101 T	
Name of work	Repair / Maintenance work of outer boundary wall Campus of Indian Institute of Management, Rohtak at Sunaria Village, Rohtak	
<i>Tender Processing Fee</i>	Rs. 5900.00 (Five Thousand Nine Hundred Only) by NEFT/RTGS etc in to the Acct. No.252201000421, Bank-ICICI Bank, IIM Rohtak Branch IFSC- ICIC0007244 (Compulsory & Non-refundable in all cases) There is no relaxation of processing fee for MSME. Proof of the same is to be uploaded along with tender document. Bids without processing fee (Rs.5900/-) will not be considered.	
Estimated Cost	For Civil/Work	Rs. 1,87,55,590/-(Excluding GST) (Rupees One Crore Eighty Seven Lakhs Fifty Five Thousand Five Hundred Ninety Only)
Earnest Money	Rs. 3,75,112/- is to be submitted online (IMPS/NEFT/RTGS) to in to Acct. No.252201000421, Bank-ICICI Bank, IIM Rohtak Branch, IFSC- ICIC0007244 in favour of "Indian Institute of Management Rohtak. Proof of the same is to be uploaded along with tender	
Performance Guarantee	5% of tendered value.	
Security Deposit	5% of tendered value	
Time Allowed	05 (Five) Months	
Date of Publishing / Hosting of Tender	07.02.2023	
Last date for Submission of Eligibility Documents & Financial Bids	28.02.2023 (upto 12:00 hrs IST)	
Date of opening of Eligibility Documents	28.02.2023(upto 14:00 hrs IST)	
Date of opening of Financial Bids	28.02.2023 (upto 15:30 Hrs IST)	
Last date for receipt of queries	24.02.2023	

This NIT for Composite work amounting to **Rs. 1,87,55,590/- (Rupees One Crore Eighty Seven Lakhs Fifty Five Thousand Five Hundred Ninety Only) Excluding GST** is hereby approved.

NIT Contain: GCC from Page 1 to 111, SCC from page 1 to 56, Part C from P-1 to 42.

SECTION 1: INFORMATION & INSTRUCTIONS TO BIDDERS FOR E-TENDERING

The Director, Indian Institute of Management Rohtak invites on behalf of the Institute online item rate tenders from specialized firms/ contractors of repute in single stage two bid system for the following work:-

NIT No.	Name of Work & Location	Estimated Cost put to Tender	Earnest Money	Period of Completion	Last date & time of online submission of Eligibility Documents & Financial bids.	Time and date of opening of Eligibility Documents	Time and date of opening of Financial Bids
1	2	3	4	5	6	7	8
	Name of work=Repair / Maintenance work of outer boundary wall Campus of Indian Institute of Management, Rohtak at Sunaria Village, Rohtak	Rs. 1,87,55,590/-	Rs. 3,75,112/-	05 (Five) Months	Up to 1200 Hrs on 28.02.2023	Up to 1400 Hrs on 28.02.2023	1530 Hrs on 28.02.2023

- A. The Bidder submitting the tender should read the schedule of quantities, additional conditions, additional specifications, particular specifications and other terms and conditions given in the NIT. The tenderer should also read the General Conditions of Contract forming Part A of the tender document. The set of boundary wall layout drawings and NIT shall be available with the **Indian Institute of Management, Rohtak at Sunaria Village, Rohtak, Haryana**. The working schedule of the same as per approved programme of completion submitted by the contractor after award of the work. The contractor shall take into account that best practices in the profession shall be employed in the detailing and Raising height and reconstruction of a damaged portion of the outer boundary wall, and rates quoted shall take that into account. The site for the work is available. The Bidder should also visit the site of work and acquaint himself with the site conditions before tendering. The following conditions, which already form part of the tender conditions, are specially brought to his notice for compliance while filling the tender. They are requested to comply following instructions.
- B. Tenders with any condition including that of conditional rebates shall be rejected forthwith. Rates of such tenders shall neither be read out, not be entered in the tender opening register at the time of opening of tender.

- C. Bidder must ensure to quote rate for each item. The column meant for rate in figure appears in white colour and once rate is entered, it turns green. While selecting any of the cell a warning appears that if any cell is left blank the same shall be treated as '0' (Zero). Therefore, if any cell is left blank and no rate is quoted by the Bidder, rate of such item(s) shall be treated as '0' (Zero).
- D. GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and Institute shall not entertain any claim whatsoever in this respect except as provided under Clause 38. The Institute shall deduct from the running bills and final bill, the TDS and other statutory deductions as applicable.
- E. 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.
- F. **The Earnest Money Deposit/ Processing/Tender Fee will have to be submitted through online mode and proof of the same is to be attached/uploaded with tender documents.**
- G. **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.**
- H. Specialized Firms / Contractors who fulfill the following requirements shall only be eligible to apply. **Applications from Joint ventures or consortium of companies will not be accepted or considered for participation.**

**Chief Administrative Officer
Indian Institute of Management Rohtak**

(a) Should have satisfactorily completed the works as mentioned below during the last Seven (7) years ending 31.12.2022.

(i) Three (3) similar works each costing not less than Rs. 75,02,236/-

OR

Two (2) similar works each costing not less than Rs. 1, 12, 53,354/-

OR

One (1) similar work costing not less than Rs. 1, 50, 04,472/-

(ii) At least one similar work should have been completed in Ministries/ Departments/Autonomous Bodies/Public Sector Undertakings under Government of India and Private Educational Institutions.

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

(i) Construction of building / brick work repair & maintenance work with finishing works, executed under single composite contract.

(ii) Components of works executed other than those included 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.

(iii) 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.

(b) Should have had a minimum average annual financial turnover (Gross) of Rs. 2.0 (Two) crores on similar building construction works during the last three consecutive balance sheets duly audited by a Chartered Accountant.

(c) Profitability: The Bidder should be a Profit (Net) making firm and should have made profit during any two of the past three Financial Years ending 31st March 2022 for which balance sheets, duly certified by the Chartered Accountant, are available.

(d) Should have a minimum solvency of Rs. 80.00 (Eighty Lakhs).

± 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 downloaded from **Indian Institute of Management Rohtak** official website (<http://www.iimrohtak.ac.in>) and also can be downloaded from website <http://tenderwizard.com/iim-rohtak>.

Bidders are advised to keep visiting the above mentioned websites 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.

Prospective Bidders may seek clarification regarding the project and/or the Tender documents, in writing to the Institute on or before 1700 Hrs on 24.01.2023. No requests for clarifications will be entertained after this date. Any clarification given by the Institute will be uploaded on the websites mentioned above and shall form part of the Tender document

- J. The Bidder shall upload the copy of the Eligibility Documents, along with proof of Earnest Money Deposit (EMD) and Tender Processing fee online on or before the date specified herein above. **No hard copy of any of the eligibility documents and Tender Document is to be submitted or sent to IIM Rohtak.**
- K. Scanned copies of Eligibility Documents and Financial Bids are to be submitted only through the e-procurement portal <https://www.tenderwizard.com/iim-rohtak> Those Bidders not registered on the website <https://www.tenderwizard.com/iim-rohtak> are required to get registered themselves beforehand. The intending Bidder must have valid class-III digital signature to submit the bid. The Bidders must furnish the Financial Bids only in the MS Excel Spreadsheet to be uploaded on the website <https://www.tenderwizard.com/iim-rohtak>
- L. **Submission of hardcopy of the Financial Bid will render the tender invalid.**
- M. Bidders shall be required to pay a Tender Processing Fee (non-refundable) of Rs 5,900/- by way of ECS/NEFT/RTGS.
- N. The Tenderer shall submit the following documents, on or before the last date and time specified herein above, in the manner prescribed below:

Online mode as per prescribed formats,

1. Document Checklist
2. Form 'A' – Structure & Organisation of Bidder (with supporting documents)
3. Form 'B' – Financial Information (with supporting documents)
4. Form 'C' – Banker's Certificate
5. Form 'D' – Details of similar works completed (with supporting documents)
6. Form 'E' – Details of similar works in hand (with supporting documents)
7. Form 'F' - Performance reports of works
8. Form 'G' – Details of Technical & Administrative Personnel
9. Form 'H' – Details of Plant & Equipment
- 10. Affidavit**
- 11. Pledge of Compliance**
12. **Integrity** Pact and Integrity Agreement
13. **Hard** copy of the Tender document may be **downloaded from website - <https://www.tenderwizard.com/iim-rohtak>** the same is to be submitted online duly signed on each page by authorized signatory.

EMD, Tender Document Fee and Solvency Certificate

1. Earnest Money Deposit.
2. Form 'C' – Banker's Certificate, issued by a Scheduled Bank.
3. Proof of submission of Tender Processing Fee.

By E-tendering mode only through E-tendering Portal (www.tenderwizard.com/iim-rohtak)

1. Eligibility Documents (in *.jpg or *.pdf format)	To be digitally signed
2. Financial Bid (.xls format-Annexure-A)	To be digitally signed

- O. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Institute, then the bid submitted shall become invalid and 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 retendering process of the work.
- P. 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.
- Q. 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.
- R. 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 100% of his earnest money shall be forfeited.
- S. 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 100% of EMD of each lowest Bidder.
- T. The tender for the works shall remain open for acceptance for a period of ninety (90) 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 100% of the said earnest money as aforesaid. Further the Tenderer shall not be allowed to participate in the re-tendering process of the work.
- U. 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.
- V. 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/bid.
- W. The successful tenderer shall get registered with works contract cell of sales tax department under Govt. of Haryana and submit a valid registration certificate before the execution of Agreement.

- X. The Successful Tenderer shall be required to submit a Performance Guarantee of 5% (Five 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 upto a maximum period of 15 days on the written request of the contractor, **however late fee will be charged @ 0.1% per day.**
- AA. The Tenderer whose tender is accepted (Successful Tenderer/Bidder or Contractor) will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 5.0 % 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.
- BB. 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 IIM Rohtak shall be communicated in writing to the IIM Rohtak. The selected Contractor shall give a list of Institute employees related to him.
- CC. 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.
- DD. 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 online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.

Chief Administrative Officer
Indian Institute of Management Rohtak

SECTION II - INFORMATION & GENERAL INSTRUCTIONS TO BIDDERS**1.0 General**

- 1.1 Letter of transmittal and forms for qualification are given in Section III.
- 1.2 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.
- 1.3 The Application should be type written. The Bidder's name should appear on each page of the Application.
- 1.4 The Application alongwith required documents should be submitted only in online mode should be hard bound and each page serially numbered. All the pages should be duly signed in ink on each page & official seal stamped and should be submitted only in online mode "Tender documents for Raising height and reconstruction of a damaged portion of the outer boundary wall inside Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak (SH: Civil Works)", addressed to Director, Indian Institute of Management Rohtak, Haryana. Documents submitted in connection with this tender will be treated confidential and will not be returned.
- 1.5 Overwriting should be avoided. Correction, if any, shall be made by neatly crossing out, initialing, dating and rewriting.
- 1.6 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.
- 1.7 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.

- 1.8 The Tender Application in prescribed form duly completed and signed shall be submitted along with a non-refundable processing fee of Rs 5,900/- (Rupees Five thousand nine hundred only) shall be submitted online.
- 1.9 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 be an enlisted contractor of any Govt. organization, his name shall also be recommended for removal from the approved list of contractors.
- 1.10 Bidders are advised to keep visiting IIM Rohtak web site and e-tender wizard websites from time to time (till the deadline for Tender submission) for any updates in respect of the Tender notice, if any. Failure to do so shall not absolve the Bidder of his liabilities to submit its Tender Application complete in all respect including update, thereof, if any. Incomplete Application may be liable to rejection.

2.0 Definitions

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

- 2.1 **Institute:** means Indian Institute of Management Rohtak, acting through Director, IIM Rohtak, Sunaria Village, and Rohtak.
- 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 typewritten 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, Memorandum and Articles of Association duly authenticated by the statutory auditor and attested by Public Notary.

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 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 Eligibility Criteria:

7.1 The Bidder should have experience of having satisfactorily completed works as mentioned below during the last Seven (7) years ending 31.12.2022.

(i) Three (3) similar works each costing not less than Rs. 75,02,236/-

OR

Two (2) similar works each costing not less than Rs. 1, 12, 53,354/-

OR

One (1) similar work costing not less than Rs. 1, 50, 04,472/-

(i) At least one similar work should have been completed in Ministries/ Departments/Autonomous Bodies/Public Sector Undertakings under Government of India.

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

(i) Construction of civil building construction / brick repair & maintenance work with finishing works, executed under single composite contract.

- (i) Components of works executed other than those included 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.
- (ii) 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.
- 7.2 The Bidder should have had a minimum average annual financial turnover (gross) of Rs. 2 (Two) crores on similar Civil/building construction works during the last three consecutive balance sheets duly audited by Chartered Accountant. Year in which no turnover is shown should also be considered for working out the average.
- 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 Profitability: The Bidder should be a Profit (Net) making firm and should have made profit during any two of the past 3 Financial Years ending 31st March 2022 for which balance sheets, duly certified by the Chartered Accountant, are available.
- 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. **Applications received without affidavit in original shall stand automatically rejected.**
- 7.7 The Bidder should own construction equipment required for the proper and timely execution of the work. The Bidder should furnish a list of these equipment.
- 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:
- a) List of full-time technical staff (clearly mentioning regular/contract staff) proposed to be deployed for the work with name, qualification and experience, each alongwith complete CV, not exceeding 2 pages.
 - b) Attested copies of Degree/Diploma and experience certificate.
- 7.10 The Bidder's performance for each work completed in the last seven 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,

Chief Administrative Officer
Indian Institute of Management Rohtak

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 initial criteria prescribed in para 7.1 to 7.13 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.

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 Financial Information:

Bidder should furnish the following financial information:

- (a) Annual financial statement for the last three (3) 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.
- (b) 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:

- (a) List of all works of similar nature successfully completed during the last seven years in (Form 'D').
- (b) List of the projects under execution or awarded in (Form 'E').
- (c) Calculation of Bidding Capacity 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 **Construction plant and equipment:**
Bidder should furnish the list of construction plant and equipment including steel shuttering, centering and scaffolding to be used in carrying out the work. (in Form 'H'). Details of any other plant & equipment required for the work not included in Form 'H' and available with the Bidder may also be indicated.
- 13.0 **Letter of Transmittal:**
The Bidder should submit the letter of transmittal attached with the document.
- 14.0 **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.
- 15.0 **Miscellaneous:**
- 15.1 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.
- 15.2 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.
- 15.3 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.
- 15.4 The Bidding process shall be governed by, and construed in accordance with, the laws of India and the Courts at Rohtak (Haryana) shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Bidding process.
- 15.5 The Institute, in its sole discretion and without incurring any obligations or liability, reserves the right, at any time, to;

- a) 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;
- b) Consult any Bidder in order to receive clarification or further information;
- c) Qualify or not to qualify any Bidder and/or to consult any Bidder in order to receive clarification or further information;
- d) Retain any information and/or evidence submitted to the Institute by, on behalf of, and/or in relation to any Bidder; and/or
- e) 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;
- f) Call for information from previous clients and evaluate the previous completed projects regarding all submissions including litigations;
- g) Undertake physical verification of completed projects and interact with clients;
- h) Call for information from taxation authority or by financial auditor, banker, chartered accountant engaged by the Bidder.

15.6 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.

Chief Administrative Officer
Indian Institute of Management Rohtak

Section-III
FORMS FOR QUALIFICATION

LETTER OF TRANSMITTAL

From:

(Full Address of Bidder)

To,

Chief Administrative Officer
Indian Institute of Management Rohtak
Sunaria Village, Rohtak -124001, Haryana

Subject: Raising height and reconstruction of a damaged portion of the outer boundary wall of
Campus at Indian Institute of Management
Rohtak at Sunaria Village, Rohtak (SH: Civil Works)

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.

1. I/We hereby certify that all the statements made and information supplied in the enclosed Forms 'A' to 'H' and accompanying statements are true and correct.
2. I/We have furnished all information and details necessary for selection of Contractor and have no further pertinent information to supply.
3. I/We submit the requisite certified solvency certificate and authorize the Director, Indian Institute of Management Rohtak to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorise the Institute to approach individuals, employers, firms and corporations to verify our competence and general reputation.
4. 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.
5. I/We undertake that 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.
6. 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.

7. Non-refundable Tender Processing Fee amounting to Rs. 5,900/- (Five Thousand Nine Hundred only) is to be submitted through NEFT/RTGS etc. herewith.
8. Earnest Money Deposit (EMD) is to be submitted online (IMPS/NEFT/RTGS) to in to Acct. No.252201000421, Bank-ICICI Bank, IIM Rohtak Branch, IFSC- ICIC0007244 in favour of "Indian Institute of Management Rohtak". Proof of the same is to be uploaded along with tender document.
9. Following documents are submitted herewith
 - i. Document Checklist
 - ii. Form 'A' – Structure & Organisation of Bidder (with supporting documents)
 - iii. Form 'B' – Financial Information (with supporting documents)
 - iv. Form 'C' – Banker's Certificate
 - v. Form 'D' – Details of similar works completed (with supporting documents)
 - vi. Form 'E' – Details of similar works in hand (with supporting documents)
 - vii. Form 'F' - Performance reports of works
 - viii. Form 'G' – Details of Technical & Administrative Personnel
 - ix. Form 'H' – Details of Plant & Equipment
 - x. Affidavit
 - xi. Pledge of Compliance
 - xii. Integrity Pact and Integrity Agreement
 - xiii. Proof of Earnest Money Deposit.
 - xiv. Proof towards Tender Processing Fee
 - xv. Tender document, duly signed on each page by authorized signatory to be submitted online.

Seal of Bidder:

Date of Submission:

Signature of Bidder

Document submission in online Mode

No.	Document Name	Yes/No	Remarks
1	Letter of Transmittal		
2	Form 'A' - Structure & Organisation of Bidder		
	<i>Supporting documents (attach copies)</i>		
	<ul style="list-style-type: none"> • Certificate of Incorporation, Certificate of Commencement of Business 		To be certified by Auditor
	<ul style="list-style-type: none"> • Partnership Deed / Memorandum & Articles of Association 		-do-
	<ul style="list-style-type: none"> • Certificate of Registration with Government Departments 		-do-
	<ul style="list-style-type: none"> • Income Tax PAN Card 		-do-
	<ul style="list-style-type: none"> • Registration with EPF & ESIC 		
3	Form 'B' - Financial Information		To be certified by Auditor
	<i>Supporting documents (for last 5 financial years)</i>		
	<ul style="list-style-type: none"> • Audited Profit & Loss Account Statement 		To be certified by Auditor
	<ul style="list-style-type: none"> • Audited Balance Sheet 		-do-
	<ul style="list-style-type: none"> • Income Tax Return 		
4	Form 'D' – Details of similar works completed		To be certified by Auditor
	<ul style="list-style-type: none"> • Attach copy of Award Letter(s) with photographs 		-do-
5	Form 'E' - Details of similar works in hand with Bidding Capacity Calculations		-do-
	<ul style="list-style-type: none"> • Attach copy of Award Letter(s) with photographs 		-do-
6	Form 'F' – Performance reports of works (for each work in Form 'D' and Form 'E')		
7	Form 'G' – Details of Technical & Administrative Personnel to be employed for this work		-do-
8	Form 'H' – Details of Plant & Equipment		-do-
9	Affidavit		To be notarised
10	Pledge of compliance		-do-
11	Integrity Pact and Integrity Agreement		
12	Tender document, duly signed on each page by authorized signatory to be submitted online		
<ol style="list-style-type: none"> <u>All the above documents will have to be arranged serially, duly page numbered.</u> <u>All pages will have to be initialed by the Authorised Signatory of the Bidder, duly stamped with the seal of the Bidder</u> <u>Each page of Qualification documents shall be serially numbered.</u> 			

Document submission in online Mode

Sl. No.	Document Name	Confirm Submission Yes/No	Remarks
1	Form 'C' –Bankers' certificate		
2	Processing Fee (Non-refundable) of Rs 5,900/- (Rupees Five Thousand Nine Hundred only)		
3	Proof of Earnest Money Deposit		

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 Construction Works (submit proof, duly attested by Bidder)	
8	Names and designation of Directors & Partners	
9	Name and designation of Authorised Signatory authorized to act for the organization.	
10	Was the Bidder ever required to suspend Construction for a period of more than six months continuously after he commenced the construction? 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.	
12	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.	
13	Has the Bidder or any constituent partner in case of partnership firm, ever been convicted by a court of law? if so, give details.	
14	In which field of Civil Engineering construction, the Bidder has specialization and interest?	
15	Any other information considered necessary related to the Tender that has not been included above.	
16	Name and address particulars of Chartered Accountant/Statutory Auditor verifying the financial information	
17	Name and Complete Address particulars of the Bidder's Bankers	

Date:

Signature of the Bidder/
Authorised Signatory

Seal of Bidder:

FORM 'B'
FINANCIAL INFORMATION

Name of the Bidder

A) Bankers Details	
a)	Name of Bank
b)	Address
c)	City
d)	Pin Code
Details of contact person for verification of particulars	
a)	Name & Designation
b)	Phone Nos. with STD Code
c)	E-mail Ids
d)	Fax No.
B) Details of Chartered Accountant/Financial Auditors	
a)	Name of Firm/CA
b)	Address
c)	City
d)	Pin Code
Details of contact person for verification of particulars	
a)	Name & Designation
b)	Phone Nos. with STD Code
c)	E-mail Ids
d)	Fax No.

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

Fig. in Rs lakhs

Sl. No.	Particulars	Financial Year					Average annual turnover
		2017-18	2018-19	2019-20	2020-21	2021-22	
	Mention whether records are audited	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	
1.	Gross Annual turnover on construction works.						
2.	Profit (+) / Loss (-)						

3	Financial Position						
	a. Cash						
	b. Current Assets						
	c. Current Liabilities						
	d. Working Capital (b-c)						
	e. Net worth						
4.	Whether Audited	Yes/No					

II. Income Tax Return for the last five years (to be attached)

III. 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 the Bidder/
Authorised Signatory

Seal of Bidder:

Signature of Statutory Auditor/
Chartered Accountant with Seal

FORM 'C'

FORM OF BANKER'S 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 upto 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:

- (i) This certificate should have been issued on or after 31.10.2022
- (ii) Banker's certificate should be on letter head of the Bank, sealed in cover, addressed to Director, Indian Institute of Management Rohtak, Sunaria Village, Rohtak.
- (iii) In case of partnership firm, certificate should include names of all partners as recorded with the bank.

FORM 'D'

**DETAILS OF ALL WORKS OF SIMILAR CLASS COMPLETED
DURING THE LAST SEVEN YEARS ENDING ON 31.07.2022**

Sl. No.	Name of work/project and location	Owner or sponsoring organization	Cost of work in crores of rupees (as per award letter)	Final cost at completion	Date of commencement as per contract	Actual date of commencement	Stipulated date of completion	Actual date of completion	Litigation / arbitration cases pending / in progress with details*	Name and address / telephone number of officer to whom reference may be	Remarks
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 31.10.2022)

Sl. No.	Name of work / project and location	Owner or sponsoring organization	Cost of work in crores of rupees (as per award letter)	Date of commencement as per contract	Actual date of commencement	Stipulated date of completion	Upto date percentage progress of work	Slow progress if any and reasons thereof	Name and address / telephone number of officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	10	11

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

The Bidding Capacity calculation is shown hereunder:

$$\text{Bidding Capacity} = \{A \times N \times 2\} - B$$

Value of A Rs.....Crores

Value of N **1.5 years**

Value of B Rs.....Crores

Bidding Capacity Rs.....Crores

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"**

1. Name of work/project & location
2. Name and address of the authority under whom the works executed:
3. Agreement No.
4. Estimated cost
5. Tendered cost
6. Gross amount of the work completed
7. Date of start
8. Date of completion
 - (i) Stipulated date of completion
 - (ii) Actual date of completion
9. Amount of compensation levied for delayed completion, if any.
10. Amount of reduced rate items, if any
11.
 - i) Did the contractor go for arbitration
 - ii) If yes, total amount of claim
 - iii) Total amount awarded
12. 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.No.	Name	Designation	Regular /Part- time	Quali ficati on	Experience in years		Roles & Respon sibilitie s	Projec ts involv ing	Deploy ment (part- time/F ull- time)
					Tota l	In present compan y			

Date:

Signature of the Bidder/
Authorised Signatory

Seal of Bidder:

Signature of Statutory Auditor /
Chartered Accountant with Seal

FORM "H"

**DETAILS OF CONSTRUCTION PLANT AND EQUIPMENT
LIKELY TO BE USED IN CARRYING OUT THIS WORK**

S. No.	Name of equipment	Nos.	Capacity or Type	Age	Condition	Ownership Status			Current Location	Remarks
						Presently Owned	Leased	To be purchased		
1	2	3	4	5	6	7	8	9	10	11
Earth moving equipment										
1.	Excavators (various sizes)									
Equipment for concrete work										
1.	Concrete batching plant									
2.	Concrete pump									
3.	Concrete transit mixer									
4.	Concrete Mixer (diesel)									
5.	Concrete mixer (electrical)									
6.	Needle vibrator (electrical)									
7.	Needle vibrator (petrol)									
8.	Table vibrator (electrical / petrol)									

Equipment for building work										
1.	Block making machine									
2.	Bar bending machine									
3.	Bar cutting machine									
4.	Wood thickness planner									
5.	Drilling machine									
6.	Circular machine									
7.	Welding generators									
8.	Welding transformer									
9.	Cube testing machines									
10.	M.S. pipes									
11.	Steel shuttering									
12.	Steel scaffolding									
13.	Grinding / polishing machines									

Equipment for transportation										
1.	Tippers									
2.	Trucks									
Pneumatic Equipment										
1.	Air compressor (diesel)									
De-watering equipment										
1.	Pump (Diesel)									
2.	Pump (Electric)									
Power Equipment										
1.	Diesel Generators (any other plant / equipment)									

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 PAPER OF Rs.10/-)**AFFIDAVIT**

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

1. 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).
2. That*I/we.....have applied in response to the Tender Documents for Construction of various Buildings and other related structures and facility for Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak (SH: CivilWorks)
3. 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.
4. 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.
6. That the above named Bidder is not in default of payment of statutory dues (other than disputes being contested by the Bidder).
7. That the above named Bidder confirms that eligible similar work(s) have not been got executed through another contractor on back to back basis.
8. That the above named Bidder confirms and agrees that, if any such violation comes to the notice of Indian Institute of Management, Rohtak (“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 therefrom.

Verified atthisday of

DEPONENT

* Strike out whichever is not applicable.

**Chief Administrative Officer
Indian Institute of Management Rohtak**

Pledge of Compliance

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

Name:
Designation:

Date:

DECLARATION

I,(name & designation with company name), acting on behalf of(company name & address), which is an bidder for the Application for Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak (SH: Civil Works), hereby undertake that my Firm/company is fully conscious that if my Firm/company is selected for providing the services to IIM Rohtak, 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 IIM Rohtak, including its authorized representatives, officials, PM/PMC and/or MPD (Project Architect) for the stated or unstated reason that IIM Rohtak’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 IIM Rohtak, including financial, time or reputation losses, as assessed by IIM Rohtak, shall lie with my company and its officials and my company shall fully compensate IIM Rohtak 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,
Indian Institute of Management,
Rohtak

Subject: **Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak (SH: Civil Works)**

Dear Sir,

I/We acknowledge that Indian Institute of Management Rohtak (IIM Rohtak) 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.

I/We confirm acceptance and compliance with the Integrity Agreement, in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by IIM-R. 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, IIM-R 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/bid.

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 of20.....

BETWEEN

IIM Rohtak 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

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - (a) No employee of the Principal/Owner, personally or through any of his/her

family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

- (b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
 - (c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

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

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the IIM Rohtak all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The Bidder(s)/Contractor(s) 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)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary

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

- c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly, Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
 - e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose 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.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
 - 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Institute interests.
 - 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under

law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 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 Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) Forfeiture of 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 terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) Criminal Liability: If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of 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

- 1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/Owner.

- 3) If the Bidder/Contractor can prove that he has resorted/recouped the 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

- 1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Sub-contractors/sub-vendors.
- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

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

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

Article 7- Other Provisions

- 1) 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.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this Pact turn out to be invalid; the remainder of

this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

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

Article 8- LEGAL AND PRIOR RIGHTS

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

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

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

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

WITNESSES:

1.
(signature, name and address)

2.
(signature, name and address)

Place:

Dated :

(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 _____, 20__ BETWEEN _____, which expression shall mean and include its successors and assigns (name and address of the Owner) ("Owner") 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 IIM Rohtak (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:

1. 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.
2. In consideration of the payments to be made by IIM Rohtak (the Owner) to the Contractor as the consideration for execution of the Works ("Consideration"), the Contractor hereby covenants with IIM Rohtak (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.
3. 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.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement:

- i) Notice Inviting Tender
- ii) Contractor's Application and documents submitted for Selection
- iii) Letter of Acceptance;
- iv) Notice to proceed with the Works;
- v) Contractor's Tender;
- vi) Contract Data;
- vii) Conditions of Contract (including Special Conditions of Contract);
- viii) Specifications;
- ix) Drawings;
- x) Bill of Quantities; and
- xi) 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 hereunto affixed in the presence of:

Signed Sealed and Delivered by the said

Binding Signature of Owner

Binding Signature of Contractor

in the presence of

Chief Administrative Officer
Indian Institute of Management Rohtak

FORM – 8

IIMR

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 **Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak (SH: Civil /Works)**. I/We hereby tender for the execution of the work specified for Director, Indian Institute of Management Rohtak, within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for ninety (90) days from the date of opening of bid 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, Indian Institute of Management Rohtak or his successors representatives, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that Director Indian Institute of Management Rohtak 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 Indian Institute of Management Rohtak for a sum of Rs.....(Rupees.....).

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

- (a) *
- (b) *
- (c) *

**For & on behalf of Indian Institute
of Management Rohtak**

Signature

Designation

Dated:

**Chief Administrative Officer
Indian Institute of Management Rohtak**

PROFORMA OF SCHEDULES**SCHEDULE 'A'**

Schedule of quantities for Civil work has been attached separately

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.

- a. Special Conditions of Contract
- b. Particular Specifications
- c. Tender Drawings
- d. Guarantee Certificate

SCHEDULE 'E'

Reference to General Conditions of Contract: General Conditions of Contract

Name of work	Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak .
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ESTIMATED COST OF WORK

I.	Civil Components	Rs. 1,87,55,590/-(Excluding GST)
II.	Earnest Money	Rs. 3,75112.00/-

I.	Performance Guarantee	5% of tendered amount
II.	Security Deposit	5% of tendered value

SCHEDULE 'F' (GENERAL RULES & DIRECTIONS)

OFFICER INVITING TENDER: Director, Indian Institute of Management, Rohtak

Definitions:

1.	Engineer-in-Charge	Chief Administrative Officer, Indian Institute of Management, Rohtak
2.	Accepting Authority	Director, Indian Institute of Management, Rohtak or Successor thereof.
3.	Percentage on cost of materials and Labour cover all to overheads and profits	15%
4.	Standard Schedule of Rates	DSR' 2021 (Civil) read alongwith correction slips/amendments
5.	Department	Indian Institute of Management Rohtak
6.	Contract Form	Form 8, General Conditions of Contract

Clause 1

1.	Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	15 (Fifteen) days
2.	Maximum allowable extension beyond the period provided in (i) above	15 (Fifteen) days with late fee @ 0.1% per day of the PG Amount.

Clause 2

Authority for fixing compensation under clause 2	Director, Indian Institute of Management Rohtak or successor thereof.
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Buildings of the project for which separate period of completion shall apply

Sl No	Name of Work	Time allowed for completion from the date of start of the project
1	Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak (SH: Civil Works)	05 (five) months

Clause 2A

Whether Clause 2A shall be applicable	No
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Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start	15 (Fifteen) days or date of handing over of site whichever is later.
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Mile stones for Civil works

S. No	Description of Milestone (Physical)	Time allowed in months (from date of start)	Amount to be with-held in case of non achievement of mile stone
Sl. No.	<i>Financial Progress</i>		
1	<i>1/8th of accepted value</i>	<i>1/4th of completion period</i>	1% of tender value
2	<i>3/8th of accepted value</i>	<i>1/2th of completion period</i>	1% of Tender value
3	<i>3/4th of accepted value</i>	<i>3/4th of completion period</i>	1% of Tender value
4	<i>Full</i>	<i>Full</i>	

Time allowed for execution of work **05 (five Months)**

Authority to decide:

(i)	Extension of time :-	Director, Indian Institute of Management Rohtak or successor thereof.
(ii)	Rescheduling of mile stones :-	Director, Indian Institute of Management Rohtak or successor thereof.
(iii)	Shifting of date of start in case of delay in handing over of site:	Director, Indian Institute of Management Rohtak or successor thereof.

Clause 6, 6A

Clause applicable - (6 or 6A)	6A
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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. 50 Lac. for (Civil work)
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Clause 10A

List of testing equipment to be provided by the contractor at site lab as per [TABLE-1] of Annexure-I attached.

Clause 10B(ii)- Applicable with interest of 12% P.A

Whether Clause 10 B (i) & (ii) shall be applicable	Yes
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Whether Clause 10 B (iii) shall be applicable	No
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Clause 10C

Component of labour expressed as percent of value of work	Non-Applicable
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Clause 10CA: - Not Applicable**Clause 10CC: - Not Applicable****Clause 11**

Specifications to be followed for execution of work	CPWD/PWD Specifications 2022 volume- I & II read along with correction slips/amendments issued up to 31.12.2022
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Clause 12

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

12.2. 12.3	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for civil work	25% (Twenty five percent) 25% (Twenty five percent)
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Clause 16

Competent Authority for deciding reduced rates.	Director, Indian Institute of Management Rohtak or successor thereof.
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Clause 17**Defect liability period - Applicable****Clause 18**

List of mandatory machinery, tools & plants to be deployed by the contractor at site.

The above list is only indicative and not exhaustive and the contractor may be required to mobilise additional Tools & Plants as per requirement.

Clause 25: Constitution of Dispute Redressal Committee: -

The Dispute Redressal Committee shall be constituted by Director, Indian Institute of Management Rohtak, if required and deemed necessary.

Clause 36 (i)**Requirement of Technical Representative(s) and Recovery Rates**

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical /Technical Representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36 (i)	
						Figures (in Rs.)	Words
1.	Project Manager with degree in Civil Engineering	Civil	Principle Technical Representative	05 Yrs	1 no.	60,000/-	(Rupees sixty thousand only) per Month
2.	Graduate Engineer or Diploma Engineer	Civil	Project/Site Engineer	03 Yrs 05 Years	2 nos.	40,000/-	(Rupees Forty Thousand only) Per Month

Clause 42

(i)	(a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	/ DSR' 2021 (Civil work) read with alongwith upto date correction
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ANNEXURE – I**Equipments for Testing of Materials & Concrete at Site Laboratory**

All necessary equipment for conducting all necessary tests shall be provided at the site in the well-furnished site laboratory of minimum size 25 feet X 15 feet by the contractor at his own cost. The following minimum laboratory equipments shall be set up at site office laboratory:-

Sl. No.	Equipment	Numbers (Minimum)
1.	100MT compression testing machine, electrical-cum-manually operated)	1
2.	Slump cone, steel plate, tamping rod, steel scale, scoop	1 set
4.	Vernier calipers	1
5.	Micrometer least count. 0.01mm	1
6.	Weighing scale platform type 100 Kg capacity	1
7.	Graduated glass measuring cylinder	As per Requirement
8.	Sets of sieves of 450mm internal dia for coarse aggregate [100mm, 80mm, 40mm; 20mm; 12.5mm; 10mm; 4.75mm complete with lid and pan]	1
9.	Sets of sieves of 200mm internal dia for fine aggregate [4.75mm; 2.36mm; 1.18mm; 600 microns; 300 microns & 150 micron , with lid and pan]	1
10.	Sieve Brushes and sieve shaker capable of 200mm and 300mm dia sieves , manually operated with timing switch assembly	1
11.	Cube moulds size 70mmx70mmx70mm	15
12.	Cube moulds size 150mmx150mmx150mm	15
13.	Hot air oven temp. Range 50°c to 300°c- sensitivity 1 degree	1
14.	Electronic balance 600gx0.1g	1
19.	Measuring jars 100ml, 200ml, 500ml	1 nos each size
20.	Core Cutter Equipment (Rammer, Cutter for density)	1
21.	Moisture Meter for Density	1
22.	WMM GI SIEVES (53 mm, 45 mm, 22.40 mm, 11.20 mm, 4.75 mm, 0.60 mm, 0.075 mm)	1 Each
23.	DBM Grade-I (45 mm, 37.5 mm, 26.5 mm, 13.2 mm, 4.75 mm, 2.36 mm, 0.30 mm, 0.075 mm) GI SIVES	1 Each
24.	DBM Grade-II (37.5 mm, 19 mm, 13.2 mm, 4.75 mm, 2.36 mm, 0.30 mm, 0.075 mm) GI SIEVES	1 Each
25.	Oven and Metal Cup's for sample keeping	1
26.	GSB GI SIEVES (75 mm, 53 mm, 26.5 mm, 9.5 mm, 4.75 mm, 2.36 mm, 0.85 mm, 0.425 mm, 0.075 mm)	1 Each
27.	Cone pentrometer for WMM liquid limit	1
28.	Compressive Testing Machine	1
29.	Water Bath equipment for DBM & BC density testing	1
30.	Bitumin extractor equipment (Manual or Electrical)	1
31.	Impact value Equipment	1
32.	Wieght Machine (50 Kg., 10 Kg. and 1 Kg.)	1

BRIEF PARTICULARS OF THE WORK

1. Salient details of the work for which bids are invited are as under:

Name of work	:	Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak		
Composite Estimated Cost	:	For Civil Components	=	Rs. 1,87,55,590/-
Period of Completion	:	05 (five) months.		

2. The site is situated at Sunaria Village, NH-10 Southern Bye Pass, Rohtak (Haryana)
3. The proposed work shall consist of Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak)
4. Following is the broad scope of work.
- i. Brick Masonary work.

Chief Administrative Officer
Indian Institute of Management Rohtak

PART-A
GENERAL CONDITIONS OF
CONTRACT

CONDITIONS OF CONTRACT

Name of work: Raising height and reconstruction of a damaged portion of the outer boundary wall Campus at Indian Institute of Management, Rohtak at Sunaria Village, Rohtak (SH: Civil work)



INDIAN INSTITUTE OF MANAGEMENT ROHTAK
Sunaria Village, Rohtak – 24001, (Haryana) Phone:
01262-228551

GENERAL RULES & DIRECTIONS

1. 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 News papers 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.

2. 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, 1952.

3. 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.

4. 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 paise and considering more than fifty paise 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 _____ & 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:

1. The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender.
2. 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.
3. 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 100% 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 _____ 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.

5. 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.
6. 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.
7. 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.

8. 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.
9. 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.
10. 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).
- 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.
11. 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.

12. 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. 2.15 P' 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).
13. (i) The Contractor whose tender is accepted, will be required to furnish performance guarantee of 5% (Five 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 5% 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.
14. 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.

15. GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and Institute shall not entertain any claim whatsoever in this respect except as provided under Clause 38.
16. The contractor shall give a list of Institute's employees related to him.
17. 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.
18. 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 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.
19. 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

20. 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 IIM Rohtak 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.
2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:-
 - (i) 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.
 - (iii) **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.
 - (iv) **Director** means the Director, Indian Institute of Management Rohtak and his successors.
 - (v) **IIM Rohtak** means Indian Institute of Management Rohtak through Director or its assignees and successors or any other official/agency assigned by the Institute.
 - (vi) **Government** shall mean the Government of India or Government of Haryana, as the case may be.
 - (vii) **Accepting Authority** shall mean the Director, IIM Rohtak.
 - (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.

- (ix) **Market Rate** shall be the rate as decided by IIM Rohtak 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.
- (x) **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 upto the date of receipt of the tender.
- (xi) **Institute** means Indian Institute of Management Rohtak which invites tenders on behalf of Director, IIM Rohtak.
- (xii) **District Specifications** means the specifications followed by the State Government in the area where the work is to be executed.
- (xiii) **Tendered value** means the value of the entire work as stipulated in the letter of award.
- (xiv) **Date of commencement of work:** The date of commencement of work shall be 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

3. 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.
4. 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.
5. 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

6. 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

7. 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

8. The several documents forming the Contract 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:-

- (i) Description of Schedule of Quantities.
- (ii) Particular Specification and Special Conditions, if any.
- (iii) Drawings
- (iv) CPWD Specifications 2009
- (v) Indian Standard Specifications of B.I.S.

- 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 therefrom 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

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

- (i) 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.
- (ii) Standard Form as mentioned in Schedule 'F' consisting of:
 - (a) Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexures thereto.
 - (b) Safety Code.

- (c) Model Rules for the protection of health, sanitary arrangements for workers employed by Institute or its contractors.
 - (d) Contractor's Labour Regulations.
 - (e) List of Acts and omissions for which fines can be imposed.
- (iii) No payment for the work done will be made unless contract is signed by the contractor.

Chief Administrative Officer
Indian Institute of Management Rohtak

CLAUSES OF CONTRACT

CLAUSE 1

Performance Guarantee

- (i) The contractor whose tender is accepted shall submit an irrevocable Performance Guarantee of 5% (Five 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.
- (ii) 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 yearwise proportionately.
- (iii) 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 5% (five percent) of the gross amount of each running and final bill till the sum deducted will amount to security deposit of 5% (Five 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 therefrom, 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, 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.

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

- | | |
|-------------------|---------------------------------|
| (i) Compensation | @ 1.5 % per month of delay |
| for delay of work | to be computed on per day basis |

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 IIM Rohtak.

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), a bonus @ 1% (one per cent) of the tendered value per month computed on per day basis, shall be payable to the contractor, 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:

- (i) 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.
- (ii) 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.
- (iii) 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.
- (iv) 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.
- (v) 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.

- (vi) 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.
- (vii) 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.
- (viii) 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.
- (x) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- (xi) 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:

- (a) 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.
- (b) 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 upto Rs. 45 lac | : | 15 days |
| (ii) If the Tendered value of work is more than 45 and upto 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 As soon as possible after the Contract is concluded, the Contractor shall submit a Time and Progress Chart for each mile stone 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'.

- a) Project Management shall be done by using project management software for works costing more than Rs. 5 Crore.
- b) The Project Management shall be done using M.S. Project software for work costing more than Rs. 5 Crore and upto Rs. 20 Crore.

PROGRAMME CHART

- (i) 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.

- (ii) The programme chart should include the following:
 - a) Descriptive note explaining sequence of the various activities.
 - b) Network (PERT/CPM/BAR CHART).
 - c) 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.
- (iii) 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.
- (iv) 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.
- (v) 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

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

- (i) force majeure, or
- (ii) abnormally bad weather, or
- (iii) serious loss or damage by fire, or
- (iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or

- (v) delay on the part of other contractors or tradesmen engaged by Institute in executing work not forming part of the Contract, or
- (vi) 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
- (viii) 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 IIM Rohtak. 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. IIM Rohtak 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, IIM Rohtak 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 IIM Rohtak certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by IIM Rohtak. The amount admissible shall be paid by 10th working day after the day of presentation of the bill by the Contractor to IIM Rohtak 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 IIM Rohtak 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 IIM Rohtak 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.

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

Contractor 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 hereinunder, 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 upto Rs. 45 lacs | : | 2 months |
| (ii) | If the Tendered value of work is more than 45 and upto 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 boundary wall drawing map, 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.

1. Completion certificates for embedded and covered-up Works issued by the Engineer-in-Charge.
2. Certificates for tests carried out for various items of Work.
3. Manufacturer's operating and maintenance manuals as well as guarantee/warranty 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

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

- (i) 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 75% 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.

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, and 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 from the client/PMC. 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 IIM Rohtak 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 :

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

B. For Maintenance works including works of upgradation, 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.

- a) 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).
- b) 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).

B. For Maintenance works including works of upgradation, 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.

B. 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 upto Rs. 45 lacs :30 days
- (ii) If the Tendered value of work is more than 45 and upto 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.

B. 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:

- (i) For Buildings : All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower.
- (ii) For abutments, piers and well staining : All works up to 1.2 m above the bed level.
- (iii) For retaining walls, wing walls, compound walls, chimneys, over head reservoirs/tanks and other elevated structures : All works up to 1.2 metres above the ground level.
- (iv) For reservoirs/tanks (other than overhead reservoirs/tanks) : All works up to 1.2 metres above the ground level.
- (v) For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.
- (vi) For civil construction work , 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;

- (i) 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.
- (ii) 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.
- (iii) 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.
- (iv) 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.
- (v) 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 Institute 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:

- (i) 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
- (ii) 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
- (iii) 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:

- (a) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
- (b) Carry out the part work/part incomplete work of any item(s) by any means at the risk and cost of the contractor.

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

- (i) 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:
 - (a) on account of any default on the part of the contractor or;
 - (b) for proper execution of the works or part thereof for reasons other than the default

- of the contractor; or
 (c) 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:
- (a) 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 (i) 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**Contactors 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 twelve months 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 civil 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

In 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 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 Eighteen years shall be employed on the work.

CLAUSE 19B

Payment of Wages

Payment of wages:

- (i) 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.
- (ii) 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.
- (iii) 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.

- (iv) (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.
- (v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made thereunder from time to time.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) 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:-

- (1) the number of labourers employed by him on the work,
- (2) their working hours,
- (3) the wages paid to them,
- (4) 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
- (5) 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,
 - (ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage.
2. Pay :
 - (i) 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.
 - (ii) 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.

3. 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.
4. 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.

- (i) (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.
 - (b) 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.
 - (c) 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.
 - (d) 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.

- (ii) (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 gobi on both sides. The floor may be kutcha but plastered with mud gobi 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.
 - (b) The contractor(s) shall provide each hut with proper ventilation.
 - (c) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.
 - (d) 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.

- (iii) **Water Supply** - The contractor(s) shall provide adequate supply of water for the use of labourers. 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.

- (iv) The site selected for the camp shall be high ground, removed from jungle.
- (v) **Disposal of Excreta** - The contractor(s) shall make necessary arrangements for the disposal 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.
- (vi) **Drainage** - The contractor(s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.
- (vii) The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.
- (viii) **Sanitation** - The contractor(s) shall make arrangements for conservancy and sanitation 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 unauthorisedly 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, it's 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 shall be paid by the contractor on actual basis.

CLAUSE 20

Minimum Wages Act to be complied with

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1970, amended from time to time and rules framed 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:

- (i) 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.

- (ii) Except where the decision has become final, binding and conclusive in terms of Sub Para (i) 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

Lumpsum 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

Withholding and lien in respect of sum due from contractor

(i) 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.

(ii) 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 Santhal Pargana Commissionery, 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.
- (iii) 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.
- (iv) 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.
- (v) 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.
- (vi) 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:-

- (i) The water charges @ 1 % shall be recovered on gross amount of the work done.
- (ii) 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**

- (i) 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.
- (ii) 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

- (i) 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.
- (iii) 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

- (i) 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.

- (ii) 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

- (i) GST, Building and other Construction Workers Welfare Cess or any other tax, levy or Cess in respect of input for or output by this contract shall be payable by the contractor and Institute shall not entertain any claim whatsoever in this respect except as provided under Clause 38. The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar, etc. from local authorities.
- (ii) 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**

- (i) All tendered rates shall be inclusive any tax, levy or cess applicable on last stipulated date of receipt of tender including extension if any excluding GST. No adjustment i.e. increase or decrease shall be made for any variation in the rate, Building and Other Construction Workers Welfare Cess or any tax, levy or cess applicable on inputs. However, effect of variation in rates of GST or Building and Other Construction Workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, increase or decrease. Provided further that for Building and Other Construction Workers Welfare Cess or any tax (other than GST), levy or cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/levies/ cess. Provided further that such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay as determined by authority for extension of time under Clause 5 in Schedule F.
- (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.
- (iii) 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

- (i) 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:-
 - (a) 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.
 - (b) 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.
 - (c) 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.
 - (d) For any other material as per actual requirements.
- (ii) 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 the Institute regarding theoretical quantities of materials which should have been actually used, shall be final and binding on the contractor.

- (iii) 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. 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.

2. a. Safety Measures for digging bore holes:
 - (i) 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;
 - (ii) During drilling, sign boards should be erected near the site with the address of the drilling contractor and the Institute of the work;
 - (iii) 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 around the point of drilling to avoid entry of people;
 - (iv) 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;
 - (v) 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;
 - (vi) After the borewell is drilled the entire site should be brought to the ground level.

3. Demolition - Before any demolition work is commenced and also during the progress of the work,
 - (i) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - (ii) 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.
 - (iii) 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.

4. 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.

- i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- ii) 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.
- iii) Those engaged in welding works shall be provided with welder's protective eye-shields.
- iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- v) 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 :-
 - a) 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.
 - c) 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.
 - d) 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.
 - e) 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.
 - f) 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.
 - g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
 - h) 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.
 - i) 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.

- j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
 - k) 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.
 - l) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
 - m) 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.
 - n) 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.
 - o) 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.
 - p) 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) The Contractor shall 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:-
- a) No paint containing lead or lead products shall be used except in the form of paste or ready made paint.
 - b) 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.
 - c) 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.
5. 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 :
- i) 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.
 - ii) Measures shall be taken, wherever required in order to prevent danger arising from

- the application of a paint in the form of spray.
- iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
 - iv) Adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
 - v) Overall shall be worn by working painters during the whole of working period.
 - vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
 - vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed.
 - viii) Institute may require, when necessary medical examination of workers.
 - ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
6. When the work is done near any place where there is risk of drowning, all necessary equipments 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.
7. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions :-
- (i) (a) These shall be of good mechanical construction, sound materials and adequate.
 - (a) 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.
 - (ii) 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.
 - (iii) 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.

8. 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 minimum 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.
9. 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.
10. 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.
11. 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.
12. 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.

3. FIRST-AID FACILITIES

(i) 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.

(ii) The first-aid box shall be distinctly marked with a red cross on white background and shall contain

a) 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 equipments :-

1. 6 small sterilized dressings.
2. 3 medium size sterilized dressings.
3. 3 large size sterilized dressings.
4. 3 large sterilized burn dressings.
5. 1 (30 ml.) bottle containing a two per cent alcoholic solution of iodine.
6. 1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
7. 1 snakebite lancet.
8. 1 (30 gms.) bottle of potassium permanganate crystals.
9. 1 pair scissors.
10. 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
11. 1 bottle containing 100 tablets (each of 5 gms.) of aspirin.
12. Ointment for burns.
13. A bottle of suitable surgical antiseptic solution.

b) For work places in which the number of contract labour exceed 50. Each first-aid box shall contain the following equipments.

1. 12 small sterilized dressings.

2. 6 medium size sterilized dressings.
3. 6 large size sterilized dressings.
4. 6 large size sterilized burn dressings.
5. 6 (15 gms.) packets sterilized cotton wool.
6. 1 (60 ml.) bottle containing a two per cent alcoholic solution iodine.
7. 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
8. 1 roll of adhesive plaster.
9. 1 snake bite lancet.
10. 1 (30 gms.) bottle of potassium permanganate crystals.
11. 1 pair scissors.
12. 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service and Labour Institutes/Government of India.
13. A bottle containing 100 tablets (each of 5 gms.) of aspirin.
14. Ointment for burns.
15. A bottle of suitable surgical antiseptic solution.

- (iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- (iv) Nothing except the prescribed contents shall be kept in the First-aid box.
- (v) 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.

4. DRINKING WATER

- (i) 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.

- (ii) 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.
- (iii) 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.
- (iv) 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.

5. WASHING FACILITIES

- (i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- (ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- (iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- (i) Latrines shall be provided in every work place on the following scale namely :-
 - (a) Where female are employed, there shall be at least one latrine for every 25 females.
 - (b) 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.
- (ii) 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.
- (iv) (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.
- (b) The notice shall also bear the figure of a man or of a woman, as the case may be.

- (v) 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.
- (vi) (a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
(b) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.
- (vii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
- (viii) 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).
- (ix) 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.

7. 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.

8. 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.

9. The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

10. 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

1. SHORT TITLE

These regulations may be called the Contractors Labour Regulations.

2. DEFINITIONS

i) **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:-

- a) Who is employed mainly in a managerial or administrative capacity : or
- b) 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
- c) 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.

ii) **Fair Wages** means wages whether for time or piece work fixed and notified under the provisions of the Minimum Wages Act from time to time.

iii) **Contractors** shall include every person who undertakes to produce a given result 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.

iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.

3. 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.
- ii) 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.

b) Where the minimum wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages 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.

c) 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.

4. **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

- i) The contractor shall fix wage periods in respect of which wages shall be payable.
- ii) No wage period shall exceed one month.
- iii) 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.
- iv) 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.
- v) 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.
- vi) Wages due to every worker shall be paid to him direct or to other person authorized by him in this behalf.
- vii) All wages shall be paid in current coin or currency or in both.
- viii) 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 wages shall be displayed at the place of work and a copy sent by the contractor to Institute under acknowledgment.
- x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Junior Engineer or any other authorized representative of Institute who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.
- xi) 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 Nohas been paid to the workman concerned in my presence on at....."

5. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

- (i) The wages of a worker shall be paid to him without any deduction of any kind except the following :-
 - (a) Fines
 - (b) 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 was absent.
 - (c) 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.
 - (d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
 - (e) Any other deduction which the Central Government may from time to time allow.
- (ii) 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
- (iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages 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.
- (v) No fine imposed on any worker shall be recovered from him by installment, or

after the expiry of sixty days from the date on which it was imposed.

- (vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

6. 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)
- (ii) 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).
- (iv) 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:
- a) Full particulars of the labourers who met with accident.
 - b) Rate of Wages.
 - c) Sex
 - d) Age
 - e) Nature of accident and cause of accident.
 - f) Time and date of accident.
 - g) Date and time when admitted in Hospital,
 - h) Date of discharge from the Hospital.
 - i) Period of treatment and result of treatment.
 - j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
 - k) Claim required to be paid under Workmen's Compensation Act.
 - l) Date of payment of compensation.
 - m) Amount paid with details of the person to whom the same was paid.
 - n) Authority by whom the compensation was assessed.
 - o) 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).
- (vi) 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)
- (viii) The contractor shall maintain a Register of Overtime in Form XXIII of the CL

(R&A) Rules 1971 (Appendix-XIV)

7. ATTENDANCE CARD-CUM-WAGE SLIP

- (i) The contractor shall issue an Attendance card-cum-wage slip to each workman employed by him in the specimen form (Appendix-VII)
- (ii) The card shall be valid for each wage period.
- (iii) 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.
- (iv) The card shall remain in possession of the worker during the wage period under reference.
- (v) 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.
- (vi) 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.

8. 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).

9. 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)

10. 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.

11. 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.

12. 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.

- (i) Institute shall arrange payments to the labour concerned within 45 days from the receipt of the report from the Labour Officer.

13. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by:-
 - a) An officer of a registered trade union of which he is a member.
 - b) An officer of a federation of trade unions to which the trade union referred to in clause (a) is affiliated.
 - c) 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.
- ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by :-
 - a) An officer of an association of employers of which he is a member.
 - b) An officer of a federation of associations of employers to which association referred to in clause (a) is affiliated.
 - c) 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.
- iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

14. 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.

15. SUBMISSIONS OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

16. 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

1. Name of the woman and her husband's name.
2. Designation
3. Date of appointment.
4. Date with months and years in which she is employed.
5. Date of discharged/dismissal, if any.
6. Date of production of certificates in respect of pregnancy.
7. Date on which the woman informs about the expected delivery.
8. Date of delivery/miscarriage/death.
9. Date of production of certificate in respect of delivery/miscarriage.
10. Date with the amount of maternity/death benefit paid in advance of expected delivery.
11. Date with amount of subsequent payment of maternity benefit.
12. Name of the person nominated by the woman to receive the payment of the maternity benefit after her death.
13. 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.
14. Signature of the contractor authenticating entries in the register.
15. 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	
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 the register of workman	Designation/nature of work done	No. of days worked	Units of work done	Daily rate of wages/ piece rate	Amount of wages earned					Deductions if any (indicate nature)	Net amount paid	Signature/thumb impression of the workman	Initial of contractor or its representative
							Basic Wages	Dearness Allowances	Overtime	Other cash payments (indicate nature)	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

NIT No.: IIMR/CIVIL/2022-23/OTE/P-101 T
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

1. No. of days worked

2. No. of units worked in case of piece rate workers.....

3. Rate of daily wages/piece rate

4. Amount of overtime wages

5. Gross wages payable

6. Deduction, if any

7. 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.

1. Willful insubordination or disobedience, whether alone or in combination with other.
2. Theft fraud or dishonesty in connection with the contractors or property of Institute.
3. Taking or giving bribes or any illegal gratifications.
4. Habitual late attendance.
5. Drunkenness lighting, riotous or disorderly or indifferent behaviour.
6. Habitual negligence.
7. Smoking near or around the area where combustible or other materials are locked.
8. Habitual indiscipline.
9. Causing damage to work in the progress or to property of Institute or of the contractor.
10. Sleeping on duty.
11. Malingering or slowing down work.
12. Giving of false information regarding name, age father's name, etc.,
13. Habitual loss of wage cards supplied by the employers.
14. Unauthorised use of employer's property.
15. 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.
16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishments.
18. Any unauthorised divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money authorised by the employer.
20. Holding meeting inside the premises without previous sanction of the employers.
21. 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 of workman	Father's/ Husband's name	Designation/ Nature of employment	Act Omission for which fine imposed	Date of Offence	Whether workman showed cause against fine	Name of person in whose presence employee's explanation was heard	Wage period and wages payable	Amount of fine imposed	Date on which fine realized	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 of workman	Father's/ Husband's name	Designation/ Nature of employment	Particulars of damage or loss	Date of damage or loss	Whether workman showed cause against deduction	Name of person in whose presence employee's explanation was	Amount of deduction imposed	No. of installments	Date of recovery		Remarks
										First installment	Last installment	
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 of employment	Wage period and wages payable	Date and amount of advance given	Purpose(s) for which advance made	Number of installments by which advance to be repaid	Date and amount of each installment repaid	Date and which last installment was repaid	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's name	Sex	Designation / nature of employment	Date on which overtime worked	Total overtime or production in case of piece rated	Normal rate of wages	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,

Indian Institute of Management Rohtak
Rohtak

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:

1. Name of applicant
2. Whether applicant is Individual/Prop. Firm/Partnership Firm/Ltd. Co.
3. Full address of the applicant
4. Name of the work and contract number in which arbitration sought
5. Contract/Agreement No
6. Contract amount in the work
7. Date of contract
8. Date of contract Date of initiation of work
9. Stipulated date of completion of work
10. Actual date of completion of work (if completed)
11. Total number of claims made
12. Total amount claimed
13. Date of intimation of final bill (if work is completed)
14. Date of payment of final bill (if work is completed)
15. Amount of final bill (if work is completed)
16. Date of request made to Director for decision
17. 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.

1. Statement of claims with amount of claims.
- 2.
- 3.

Yours faithfully,
(Signatures)

**FORM OF PERFORMANCE SECURITY (GUARANTEE)
BANK GUARANTEE BOND**

In consideration of the Director, Indian Institute of Management Rohtak (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.

1. 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.

2. 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).

3. 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.

4. 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.

5. 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.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Institute in writing.
8. This guarantee shall be valid up tounless 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 theday offor.....(indicate the name of the Bank)

PART-B

**SPECIAL CONDITIONS &
ADDITIONAL CONDITIONS**

SPECIAL CONDITIONS OF CONTRACT

1.0 SPECIAL CONDITIONS OF CONTRACT

1.1 SUB-CONTRACTORS

Where and when the appointment of specialist Sub-Contractors is indicated, such Sub-Contractors shall be appointed only with the prior written approval of the Institute upon recommendation of Engineer-in-Charge on the following conditions:-

- (A) The Contractor shall enter into written agreements with Sub-Contractors and ensure that the Sub-Contractors perform their Work in accordance with and subject to the terms and conditions of these Contract Documents. A copy of each such Agreement shall be furnished to the Engineer-in-Charge.
- (B) The Contractor shall remain fully responsible to the Institute for the performance and workmanship and all actions of all sub-Contractors and persons directly or indirectly employed by them.
- (C) The Contractor shall supply and permit all Sub-Contractors to avail of site facilities and services to enable them to complete their Work safely and without hindrance or delay and conducive to produce the highest quality of Work required.
- (D) The Contractor shall upon receipt of instruction from the Engineer-in-Charge, terminate and remove from site forthwith such Sub-Contractor or their persons whose Work may be considered unsatisfactory.
- (E) The Contractor shall make regular and prompt payment to each Sub- Contractor not later than one week after receipt of payment from the Institute for their measured Works certified by the Engineer-in-Charge. If the Contractor fails to make payments to Sub-Contractors as aforesaid, the Institute may, without any obligation or prejudice to its rights and with prior intimation to the Contractor may make direct payments to Sub-Contractors for and on behalf and from the account of the Contractor and recover such sums from the account of the Contractor out of the amounts due and payable under the bills raised by the Contractor. Such direct payments to Sub-Contractors shall be on behalf of the Contractor and shall in no way relieve the Contractor of his responsibilities or create a contractual relationship between the Owner and Sub-Contractor.
- (F) Any Subcontractor that has been approved by the Institute shall neither be removed nor replaced without the prior written consent of the Institute.

1.2 PROTECTION OF PERSONS, WORKS AND PROPERTY ACCIDENT OR INJURY TO WORKMEN

The Institute shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Subcontractor.

Accident Prevention:**(A) General:**

In performing this contract, the Contractor shall provide for protecting the lives and health of employees and other persons preventing damage to or theft or loss of property, materials, supplies, and equipment; and avoiding Work interruptions. For these purposes, the Contractor shall

- Provide appropriate safety barricades, signs, and signal lights.
- Comply with the standards issued by any statutory bodies having jurisdiction over occupational health and safety and Ensure that any additional measures as required by the Engineer-in-Charge for this purpose.

(B) Records.

The Contractor shall maintain an accurate record of exposure data on all accidents taken place incidental to performance of Work(s) under this contract resulting in death, traumatic injury, occupational disease, or damage to or theft/loss of property, materials, supplies, or equipment. The Contractor shall report this data in the manner prescribed by Engineer-in-charge.

(C) Sub-Contractors:

The Sub-Contractors shall be bound to comply with the clause in the same manner as complied with by the Contractor. In the event of non-compliance by the Sub-Contractor of such clause, the Contractor shall be responsible for compliance of the Sub-Contractor.

(D) Written program:

Before commencing the Work, the Contractor shall submit to the Institute a written proposal for implementing this clause,

1.3 HAZARDOUS MATERIAL IDENTIFICATION**(A) Notification:**

The Contractor shall notify Engineer-in-charge in writing of all hazardous material 5 days before delivery of the material. This obligation applies to all materials delivered under this contract, which will involve exposure to hazardous materials or items containing these materials.

(B) Responsibility of Contractor:

Neither the requirement of this clause nor any act or failure to act by the Institute shall relieve the Contractor of any responsibility or liability for the safety of the Institute, Contractor, or Sub-Contractor's personnel or property.

(C) Compliance with laws:

The Contractor shall comply with applicable laws, including the Public Liability Insurance Act 1991, Fatal Accident Act 1855, codes, ordinances, and regulations (Including the obtaining of licenses and permits) in connection with hazardous materials. Contractor shall pay fees and other expenses for obtaining such permission or licenses.

Sub-Contractors:

The Contractor shall insert these above clauses, relating to hazardous material, with appropriate changes on entering into contracts or agreements with Sub-Contractors and the sub-contractors shall be bound and be liable to comply with the same, and in the event of non-compliance of the same, the Contractor shall be held liable for damages or otherwise on the acts of the Sub-Contractor in this regard.

The chemicals shall be tested in an independent laboratory as approved by the Engineer-in-charge at the frequency as specified. If required, more samples may have to be tested as per the directions of the Engineer-in-Charge.

1.4 PROTECTION OF PROPERTY

1. Vegetation, structures and equipment:

The Contractor shall preserve and protect all structures, equipment, and vegetation on or adjacent to the Work site, and which do not unreasonably interfere with the Work required under this contract and shall not be removed by the Contractor. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place.

2. Utilities and improvements:

The Contractor shall protect from damage and have all existing improvements and utilities at or near the Work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall be liable to repair any damage caused to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the Work. If the Contractor fails or refuses to repair the damage promptly, the Engineer-in-Charge may have the necessary Work performed and charge the cost to the Contractor or reduce such amounts from the bills of the Contractor due and payable by the Institute.

3. Contractor shall be required to work within specified areas and they shall be allowed to use only those areas around the works under their scope, for storage of their materials, construction of site offices, erection of batching plant etc. at predetermined locations as shown on the plans. The area so demarcated, shall be barricaded in such a way that the construction activities or the moving vehicular traffic involved in carriage of construction materials/construction waste etc. do not create interference with any other areas within the premises or activities of the Institute or the activities of other contractor/s working within the premises.

4. The contractor shall provide suitable barricading approximately 2.0 m high, with suitably painted with three rows of G.I. Sheets about 2'6" to 3'0" wide (75 cms to 90 cms.) nailed or bolted with wooden poles spaced 2 to 3 meter apart and each pole 1.6 m to 2 m long 8 cm. to 10 cm. dia. The poles will be embedded

in mobile iron pedestal rings suitably framed for giving stable support as per direction of the Engineer-in-charge. All management (including watch and ward) of barricades shall be the full responsibility of the contractor. The barricades shall be removed only after completion of the work or part of the work. The contractor's rate shall include all above items of work and nothing extra shall be paid to the contractor over and above his quoted rates.

5. The positioning of barricading will be reviewed from time to time and necessary shifting barricading as directed by Engineer -in-charge shall be done forthwith by the contractor and nothing extra shall be paid to the contractor.
6. Contractor will make his own arrangements for making temporary roads and approaches to various locations of work under their scope and up to disposal sites marked on the drawing. These internal approaches and temporary roads shall be made in such a way that they do not affect construction activities of permanent roads within the premises at any time.

1.5 Watchmen and Security

The Contractor shall provide sufficient personnel and materials to provide adequate protection to the property and personnel at the site, in transit and stored goods/materials including but not limited to measures specifically required by and under the Contract Documents and any security requirements under this contract.

1.6 CORRECTIVE ACTION

(A) Authority to Stop Work:

Engineer-in-charge shall notify the Contractor of any non-compliance with the safety and property protection measures as required under this contract of which Institute becomes aware and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's authorized representative at the site of the Work shall be deemed sufficient notice of non-compliance and corrective action required. After receiving the notice, the Contractor shall immediately take necessary steps to correct the action. If the Contractor fails or refuses to take corrective action promptly, the Engineer-in-Charge shall at his discretion may issue an order stopping all or part of the Work(s) until satisfactory corrective action has been taken. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop Work order issued under these circumstances.

(B) Rectification:

The Contractor shall be solely responsible to make good at his cost any damage to the Works, property of the Institute and/or any adjacent property, to the satisfaction of the Engineer-in-Charge. In case the contractor fails to do so within a reasonable time the Engineer-in-Charge shall get the same executed at the risk & cost of the contractor & deduct the same from his due payments.

1.7 SITE SECURITY

The Contractor shall be deemed to be in possession of the Works site and shall be responsible for its total security, and shall ensure that all materials, sheds,

equipment, plant, tools, etc; whether his own or belonging to any Sub-Contractor, are well protected.

- (A) The Contractor shall at his own cost install and maintain sufficient security fences and gates and employ full time round-the-clock security personnel to prevent the Works site from and against the intrusion of the public or any other unauthorized persons or vehicles.
- (B) Total security of the site, property, and materials shall be the sole responsibility of the Contractor. The presence of his consultant's representatives or IIM Rohtak's security personnel shall in no way relieve or absolve the Contractor of his responsibilities in ensuring the security and protection of the site and everything stored or lying thereon.

1.8 WARRANTY/Guarantee

The Contractor shall be responsible for the proper performance of the Work(s), including installations and systems, as specified under the Contract Documents.

Subject to Clause the Contractor shall, at his own cost and in the shortest possible time, repair and remove any defect or deficiency in the Works, which may appear prior to or during the defect liability period, to the satisfaction of the Engineer-in- Charge.

A guarantee will be given by the Contractor for the complete installation of the Works including its functioning, replacement of parts etc. as specified under the Contract Documents.

1.9 CONTRACTOR'S RESPONSIBILITIES AND WORK CONTROL

The Contractor shall have complete control of the Works and shall effectively and diligently control, direct and supervise his employees, supervisors, subordinates and Sub-Contractor(s) so as to ensure timely completion of the Works in order and in conformity with the Contract Documents. It shall be the sole responsibility of the Contractor for construction means, methods, techniques, sequences and procedures, and for coordinating the various parts of the Work, whether carried out by the Contractor or any Sub-Contractor.

The Contractor shall provide adequate, qualified and experienced personnel for the proper superintendence and execution of the Works until completion. The category and strength of such personnel shall be determined by the Engineer-in-Charge, and such approved site organization strength shall be maintained by the Contractor at all times until completion of Work(s), and also during defects liability period and as may be decided by the Engineer-in-Charge.

The Contractor shall be responsible for the design, erection, operation, maintenance and removal of temporary structures and other facilities at his own cost during completion of the Works. Any approval sought, given or implied, regarding sufficiency, stability and safety of temporary staging and facilities shall in any way not relieve the Contractor of his responsibility.

- (A) The Contractor shall study all Contract Documents and promptly report to the Engineer-in-Charge any non-conformity, discrepancy, inconsistency or omission he may discover in the same. In the event of such discovery, the Contractor shall not proceed with the affected Works until he has received due corrections and clearances from the Engineer-in-Charge.
- (B) The Contractor shall be deemed to have thoroughly studied and satisfied himself regarding Contract Documents and particularly all drawings before commencement of the Work(s). Should any discrepancy or error be discovered during execution of parts of the Work(s) necessitating demolition, repairs or reconstruction, all such remedial measures shall be carried out only with the approval of the Engineer-in-Charge and entirely at the cost of the Contractor. In such an event the Contractor shall neither claim any extra payment nor any extension of time for any delay caused by virtue of such demolition, repairs and reconstruction.

Any instructions given to the Contractor's supervisory staff by the Engineer-in-Charge shall be deemed to have been given to the Contractor. Instructions that involve any variations in design or specifications and which may have a bearing on time and cost shall be through a written Change Order by the Engineer-in-Charge and at rates agreed in writing prior to implementation.

The Contractor shall at his own cost, obtain any permits or authorizations necessary for the execution of the Work and obtaining any permits or approvals for the works executed by him, from all concerned statutory and Institute Authorities/Authority's, including but not limited to Municipal bodies, Electrical Authority, Fire Service Authorities etc.

The Contractor shall not be entitled to claim additional sums on account of having to work overtime in order to complete an operation that cannot be interrupted, for working in extended shifts/night shifts/holidays.

In the event the Contractor chooses to work overtime, in extended night shifts as and by way of overtime either by working extended/night shifts or morning or holidays in order to complete the Work(s) within the specified period or on holidays, he shall do so by obtaining prior written approval from the Engineer-in-Charge at least twenty-four hours in advance. The Contractor moreover shall ensure that in any of the above circumstances he maintains the full-agreed strength of his supervisory staff.

The Contractor shall take all necessary precautions to protect the site and Works, materials, plant and equipment, whether his own or belonging to the Institute or any Sub-Contractors, against hazards of fire, rains, floods, landslides, underground water, accidents, etc.

The Contractor shall not be permitted to replace nor remove his Project Head/Project Engineer/Site Engineer etc. from the site without the prior written approval of the Engineer-in-Charge.

Submittals

- (C) “Shop drawings” means those drawings or other documents, which are specifically prepared by or on behalf of the Contractor to illustrate details of construction for the purpose of fabrication or installation and are submitted to the Owner to indicate the Contractor’s intended method of achieving the end result required by the Contract Drawings and Specifications.
- (D) “Project data” includes standard drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the Work required by the Contract.
- (E) “Samples” are physical examples, which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.
- (F) “Other submittals” includes progress schedules, setting drawings, testing and inspection reports, and other information required by the Contract Documents to be submitted by the Contractor for information or approval by the Institute.

Schedules of Submittals

Promptly after contract award the Contractor shall submit to the Engineer-in-Charge the submittal schedule showing when shop drawings, product data, samples and other submittals required by and under the Tender Documents would be submitted for the approval of the Engineer-in-Charge.

Review and approval of submittals by Contractor

The Contractor shall co-ordinate and compile all submittals required by and under the Contract Documents, and thoroughly check them for accuracy, completeness, and compliance in accordance with contract requirements and shall indicate his approval thereon in the form required by the Contract Documents as evidence of such co-ordination and checking. Submittals to the Engineer-in-Charge without the approval of the Contractor shall be returned by the Engineer-in-Charge for resubmission. Submission of shop drawings, product data or samples shall constitute a representation that the Contractor has agreed to, asserted and guaranteed that the assemblies, products or materials indicated therein will be available in a timely manner and in the quantities required for the project as set out under the Contract Documents.

Submission

All submittals shall be in English language, and any system of dimensions (i.e.; English or metric) shown shall be consistent with that used in the Contract Documents. The Contractor shall submit all Submittals in the form and number required by the Contract Documents within required time limits and sufficiently in advance of construction requirements to permit adequate review by the Institute for correction, approval and resubmission if required. No extension of time shall be allowed on account of any delay by the Institute in approving such submittals, if the Contractor has failed to act promptly and responsively in making his submissions. Each submittal shall be identified as required by the Contract Documents.

Action on Submittals

The Engineer-in-Charge will indicate an approval or disapproval of the Submittals for and on behalf of the Institute requiring approval by the Institute and if not approved as submitted shall indicate the Institute's reasons thereof. Approval by the Engineer-in-Charge shall not relieve the Contractor from responsibility for any errors or omissions in his submittals, nor from responsibility for complying with the requirements of this contract, except with respect to variations described by the Contractor and approved in accordance with "Variations in Submittals" Clause. The approval of the Engineer-in-Charge on the submittals will be for general compliance with the intent of the Contract Documents and with the information given therein, and shall not be construed

- (A) As permitting any departure from the contract requirements
- (B) As relieving the Contractor of responsibilities for any error including details, dimensions, materials, etc. and
- (C) As approving departures from details appearing on Contract Drawings and Specifications.

Where approval of Submittals is required, the Contractor shall perform the Work in accordance with such approved Submittals. Any Work performed by the Contractor prior to such approval by the Engineer-in-Charge shall be at the sole risk and liability of the Contractor.

Variation in Submittals

If Submittals contain any variations from the contract requirements, other than those requested on previous submittals, the Contractor shall specifically describe such variations in writing and the reasons thereof to the Engineer-in-Charge. If the approval of any such variation affects the Contract Price or the Completion time of the Contract, the Engineer-in-Charge shall issue an appropriate Contract modification. Otherwise, the variation may be approved by the Engineer-in-Charge, only by specific reference thereto in writing. The Contractor shall not be entitled to rely on general approval of a submittal as an approval of variations of requirements of the Contractor. If the Contractor fails to describe such variations and shall not be relieved from the responsibilities of executing the Work in accordance with the contract, notwithstanding a general approval of such submittals. Nothing contained herein shall relieve the Contractor of the responsibility of notifying the Engineer-in-Charge of any part of the Contract Drawings or Specifications, which the Contractor knows or reasonably should have known which could result in defects under construction.

Use of submittals

The Owner shall not duplicate, use, and disclose in any manner and for any purpose shop drawings, product data and other submittals delivered under this contract.

Placement of Orders

The Contractor shall place orders for items requiring a sample or product data submittal promptly after receiving the written approval of the submittal by the Engineer-in-Charge. No such materials or products shall be ordered or used in the

Work until such written approval by the Engineer-in-Charge has been given. In the event such materials or products pre ordered or used in the Works without the written approval of the Engineer-in-Charge, the same shall be at the risks, consequences, liability and costs of the Contractor.

Use and testing of samples

(A) Use:

Approved samples not destroyed in testing will be sent to Engineer-in-Charge. Those samples, which are in good condition, will be marked for identification and may be used in the Works. Materials and equipment incorporated in the Work shall match the approved samples within any specified tolerances. Other samples not destroyed in testing nor approved will be returned to the Contractor at the expense of the Contractor if so requested at the time of submission.

Failure of samples to pass specified tests:

Failure of any material to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material or equipment which previously has proved unsatisfactory in service.

(B) Taking and testing of samples:

Samples of various materials or equipment delivered on the site or in place will be taken by the PMC for external lab testing. All the testing charges is to be brne by the contractor.

(C) Cost of additional testing:

Unless otherwise specified, when additional tests are made, only one test of each set of sample proposed for use will be made at the expense of the Contractor. Samples, which do not meet contract requirements, will be rejected. Further testing of additional samples, if required, will be made at the expense and costs of the Contractor.

1.10 Co-operation with other contractors/specialized agencies/sub-contractors

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

property whatsoever caused, due to the execution of the work or by traffic brought thereon, by the Contractor. Further, the Contractor shall take all precautions to attendee by the environmental related restrictions imposed by Govt. of Haryana as well as prevent any pollution of streams, ravines, river bed and waterways. All waste or superfluous materials shall be transported by the Contractor, entirely to the satisfaction of the Engineer-in-Charge. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Tenderers are advised to visit site and get first-hand information of site constraints.

Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

- (2) The Contractor shall cooperate with and provide the facilities to the sub-Contractors and other agencies working at site for smooth execution of the work. The contractor shall indemnify the Owner against any claim(s) arising out of such disputes. The Contractor shall:
 - (i) Allow use of scaffolding, toilets, sheds etc.
 - (ii) Properly co-ordinate their work with the work of other Contractors.
 - (iii) Provide control lines and benchmarks to his Sub-Contractors and the other Contractors.
 - (iv) Provide electricity and water at mutually agreed rates.
 - (v) Provide hoist and crane facilities for lifting material at mutually agreed rates.
 - (vi) Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
 - (vii) Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.
 - (viii) Resolve the disputes with other Contractors/sub-contractors amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator.
- (3) The work should be planned in a systematic manner so as to ensure proper co-ordination of various disciplines viz. sanitary & water supply, drainage, rain water harvesting, electrical, and firefighting, information technology, communication & electronics and any other services.
- (4) Other agencies will also simultaneously execute and install the works of sub-station / generating sets, air-conditioning, lifts, etc. for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be supplied free of cost by the Institute unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete,

stone work and brick work, if required, and nothing extra shall be payable on this account.

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

1.11 RATES

1. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels, survey with total station, construction of all safety and protection devices, compulsory use of helmet and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers as per drawing supplied by Engineer in charge, working during monsoon or odd season, working beyond normal hours, working at all depths, height, lead, lift, levels and location etc. and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.
2. The rates quoted by the tenderer, shall be firm and inclusive of all taxes and levies as applicable
3. No foreign exchange shall be made available by the Owner 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.
4. All ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, testing facilities/Laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in- Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts.
5. 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, notwithstanding the fact that the Contractor may have to pay extra amounts for any reason, to the Labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.

6. All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
7. Rate shall include of Liaison work required, if any, in this regard with the local bodies. Nothing extra shall be payable on this account. Statutory charges, fees etc. required to be paid to the local bodies in this connection shall only be payable by the Owner or shall be reimbursable to the contractor on production of proof of actual payment made by him.
8. It is clarified that the contractor shall be responsible for obtaining all the no objection certificate (NOCs) and relevant licenses for services like lift installation, electrical installation, fire installation and like. Nothing extra shall be payable on this account.

1.12 Inspection and Rectification of Works

Access:

The Institute and their authorized agents and representatives shall at all times have access to the site and other locations where parts of the Work are under preparation.

Contractor tests:

The Contractor shall notify the Engineer-in-Charge well in advance, of tests and inspections to be carried out, and shall obtain his written approval wherever so stipulated before proceeding with the Works.

Inspections:

The Contractor shall maintain an adequate inspection system and perform such inspections from time to time as will ensure that the Work called for by this contract conforms to contract requirements and does not result in any deviation. The Contractor shall maintain complete inspection records and make them available to the Institute. All Work shall be conducted under the general direction of the Contractor and is subject to Institute's inspection and test at all places and at all reasonable times before final completion and acceptance with a view to ensure strict compliance with the terms and conditions of the contract.

Owner's inspections and tests:

Inspections and tests conducted by or on behalf of the Institute are for the sole

benefit of the Institute and do not:-

- (A) Relieve the Contractor of responsibility for providing adequate quality control measures,
- (B) Relieve the Contractor of responsibility for damage to or loss of the material before final completion and acceptance of the Work;
- (C) Constitute or imply acceptance. Or.
- (D) Affect the continuing rights of the Owner after acceptance of completed Work.

Owner inspectors:

The presence or absence of Institute's inspector does not relieve the Contractor from any of the obligations under the contract nor is the inspector authorized to change any term or condition of the contract.

Performance of inspections and tests:

The Contractor shall promptly furnish, without an additional charge all facilities, labour, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Engineer-in-Charge as per the terms of the Contract and CPWD specifications. The Institute may charge to the Contractor any additional cost of inspection or testing when work is not ready at the time specified by the Contractor for inspection or testing, when prior rejection makes re inspection or retesting necessary. The Institute shall perform all its inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the Contract Documents and CPWD specifications.

The Contractor shall be solely responsible for the protection of all finished surfaces and Works so as to avoid any repairs and shall deliver to the Institute upon final completion the Works free of any blemish, defect or damage.

1. In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by the other agency as and when required by Institute in addition of the Engineer-in-charge and his authorized representative. 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 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.
2. Inspection of the work by Project Management Consultant / Master Plan Designer – Project Architect appointed by Institute.
 - (i) The Project Management Consultant / Master Plan Designer – Project Architect appointed by Institute shall be inspecting the works frequently to ensure that the works are in general being executed according to the design, drawings and specifications laid down in the contract.
 - (ii) The Project Management Consultant / Master Plan Designer – Project Architect appointed by Institute shall certify on completion of particular building that it has been constructed according to the approved drawings design and specifications.

1.13 Rejected Work

The Engineer-in-Charge or Owner shall be authorized to reject any Work, which in their/his opinion is not in conformity to the specifications set out in the Contract Documents. The decision of the Engineer-in-Charge in this regard shall be final and binding on the Contractor.

Defective Work whether caused due to poor workmanship, use of sub-standard materials, or use of materials without approval of Engineer in charge or on account of damage or for any other reason whatsoever, whether caused by the Contractor and/or the Sub-Contractor may be rejected by the Engineer-in-Charge or Owner and shall be demolished by the Contractor and removed promptly from the site and replaced or re-executed expeditiously by the Contractor at his own cost. The Institute, Engineer-in-Charge, Project Management Consultant or Master Plan Designer – Project Architect shall in no event be responsible to bear any costs/liability arising on account of such defective workmanship.

If in the opinion of the Engineer-in-Charge or Owner, it is not expedient nor feasible to correct the defective Work, the Owner shall be entitled to deduct or not pay any monies due to the Contractor or the difference in value between the executed Work and that required under the Contract, such amount of which shall be determined by the Engineer-in-Charge.

1.14 Limit of Price Adjustment- Not Applicable

In determining all Price Adjustments in accordance with the conditions of contract:

- (A) No account will be taken of any amount by which any cost incurred by the contractor has been increased by default or negligence of the contractor.
- (B) If the contractor fails to complete the work within time for completion, increase or decrease of cost of specified materials shall be made using either the indices or prices relating to prescribed time for completion, or the current indices or prices, relating to prescribed time for completion, or the current indices or prices, whichever is more favorable to the Institute, provided that if an extension of time is granted, the above position shall apply to the adjustment made after expiry of such extension of time.
- (C) On completion of the works and before final payment the contractor shall give a certificate that he has made full and complete disclosure to the Engineer-in-Charge of every increase or decrease in price obtained by him on materials affected by this clause.

1.15 Exemption from price Adjustment

The following items shall not be included in the price adjustment calculation:

- (A) Liquidated damages:
- (B) Retention withheld and released:
- (C) Advance payments in the form of loans and their repayments:
- (D) The value of any additional or varied work valued at current market prices:

ADDITIONAL CONDITIONS

1.0 ADDITIONAL CONDITIONS

1.1 GENERAL

- 1.1.1 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, general ground / subsoil conditions etc. or any other circumstances which may affect or influence their tenders. The site is available for work. The contractor shall carry out survey of the work area, at his own cost, setting out the layout and fixing of alignment of the building as per architectural and Structural drawings in consultation with the Engineer-in-Charge and proceed further ensuring full structural continuity and integrated and monolithic construction. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-in-charge.
- 1.1.2 The Contractor shall, if required by him, before submission of the tender, inspect the drawings in the Office of the **Indian Institute of Management, Rohtak at Sunaria Village, Rohtak, Haryana**. The Institute 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.
- 1.1.3 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.

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

Proper temporary barricading by fencing with agro-shade net shall be carried out by the Contractor at the start of phased works created as per direction of Engineer-in-charge work to physically define the boundaries of the plot for restricted entry to only those involved in the work and also to prevent any accidents, at the same time without causing any inconvenience to the traffic and the users of the handed over buildings in the adjacent plots. It shall be done by providing, erecting, maintaining temporary protective barricading of minimum 3.90 metres above ground in height, made in panels, with each panel having MS frames / MS scaffolding pipes of suitable size and stiffness, with agro-shade net fixed on frames. Such panels shall be suitably connected to each other for stability with nuts and bolts, hooks, clamps etc. and fixed firmly to the ground at about 2 metres spacing, for the entire duration till completion of the work. He shall also provide and erect temporary protective barricades within the plot, if required, to prevent any accident. Temporary protective roofing near the Entrance to the building, under construction, shall be made to protect the visiting officials from getting hurt by falling debris etc. Also, one or more coat of enamel paint of shade as approved and directed by the Engineer-in-Charge shall be applied on the panels. It shall be dismantled and taken away by the Contractor after the completion of work at his own cost with the approval of the Engineer-in- Charge. Nothing extra shall be payable on this account.

All work shall conform to the statutory Bye-laws and Regulations of the concerned authority/Municipality, Haryana Fire Services as applicable to the Project. If the tender specifications and drawings are more stringent than required as per the Local Authorities then the tender specifications and drawings shall be followed. In the other case, if the local authorities more stringent specifications than those specified in the tender specifications, then the set by-laws and regulations shall be followed at no extra cost.

- 1.1.5 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.

- 1.1.6 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. Working (both Architect and structural) drawings will be released progressively to the contractor commensurate to the construction schedule approved by Engineer-in-Charge.
- a) 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.
 - b) In the event of any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed.
 - (i) Description of items as given in Schedule of quantities
 - (ii) Particular specifications
 - (iii) Special conditions
 - (iv) Additional Conditions
 - (v) Tender drawings attached
 - (vi) CPWD Specifications including up-to-date correction slips.
 - (vii) General Conditions of Contract (GCC).
 - (viii) Indian Standards Specifications of B.I.S.
 - (ix) ASTM, BS, or other foreign origin codes mentioned in tender document.
 - (x) Manufacturer’s specifications and as decided by the Engineer-in-Charge.
 - (xi) Sound Engineering practices or well established local construction practices.
 - c) The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works.

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

- (i) Preparation of detailed Shop drawings and As-built drawings wherever applicable.
- (ii) Obtaining of Statutory permissions where-ever applicable and required.
- (iii) Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
- (iv) Warranty obligation for the equipments and / or fittings/fixtures supplied by the contractor. Contractor shall provide all the shop drawings or layout drawings for all the co-ordinated services before starting any work or placing any order of any of the services etc. These shop drawings/layout drawings shall be got approved from Engineer-in-charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along with material sample for approval of Engineer-in-Charge prior to delivery of material at site.

- 1.1.7 The work shall be carried out in accordance with the approved architectural drawings, structural drawings, service 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.

The delay caused on account of non-timely action by the contractor in resolution of the differences whatsoever shall not be considered as valid ground for extension of time unless otherwise accepted by Engineer-in-Charge.

- 1.1.8 Unless otherwise provided in the Schedule of Quantities, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account. Payment for centering, shuttering, however, if required to be done for floor heights greater than 3.5m shall be admissible at rates arrived in accordance with clause 12 of the agreement if not already specified.
- 1.1.9 The Contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan. However, if any change is required, the same shall be done with the approval of Engineer-in-Charge.
- 1.1.10 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.

Wherever the BOQ item stipulates design, the contractor shall have to supply designs and shop drawings which shall have to be vetted by any other Institute/Agency of repute as approved by Engineer-in-Charge, and all costs towards the same, including charges for vetting shall be deemed to have been included in the quoted rates.

- 1.1.11 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable or extra cement considered in consumption on this account.
- 1.1.12 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.

- 1.1.13 Water tanks, taps, sanitary, water supply & drainage pipes, fittings & accessories should conform to bye-laws of local body/corporation, where CPWD specifications are not available. The Contractor should engage approved, licensed plumbers for the work and get the materials (fixtures/fittings) tested, by the municipal Body/ Corporation authorities wherever required at his own cost.
- 1.1.14 The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications 2009. All expenses towards collection of samples, packing, transportation etc. shall be borne by the contractor.

Work shall normally be done in a single shift/day. However if the work is required to be executed in more than one shift in a day for meeting the time lines, the Contractor with prior approval of the Engineer-in-charge, shall have to make necessary arrangements for the same and all costs towards the same shall be deemed to have been included in the quoted rates.

1.2 PREVENTION OF NUISANCE AND POLLUTION CONTROL

- 1.2.1 The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties from pollutants like smoke, dust, noise. The contractor shall use such methodology and equipment so as to cause minimum environmental pollution of any kind during construction and minimum hindrance to road users and to occupants of the adjacent properties or other services running adjacent/near vicinity. The contractor shall make good at his cost and to the satisfaction of the Engineer-in- Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor, without any reservation, entirely to the satisfaction of the Engineer-in-Charge.
- 1.2.2 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), if any.

1.3 SECURITY AND TRAFFIC ARRANGEMENTS

- 1.3.1 In the event of any restrictions being imposed by IIMR/ Municipal body / Police/ NHAI 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.
- 1.3.2 If as per the rules of the local authority, the huts for labour are not to be erected at the site by the contractor, the contractor is required to make his own arrangements to provide huts for labourers as is acceptable to local bodies and nothing extra shall be paid on this account. 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.

- 1.3.3 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 Institute's 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.
- 1.3.4 The contractor shall construct suitable godowns, yard at the site of work for storing all other materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost.
- 1.3.5 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.
- 1.3.6 Royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle sand and bajri etc. collected by him for the execution of the work, direct to the Revenue authority or authorized agent of the State Government concerned or Central Government.
- 1.3.7 The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including all equipments, services provided by him against pilferage and breakage during the period of Installations and thereafter till the building is physically handed over to the Institute. No extra payment shall be made on this account and no claim shall be admissible on this account.
- 1.3.8 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 / Haryana State Govt. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities. All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and shall pay to such authority all the fees that is required to be paid for the execution of work. He 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 Occupancy Certificate for the building shall be borne by the Institute.

- 1.3.9 For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required the contractor shall do the same at his own cost and nothing extra shall be paid except otherwise provided in the items of Schedule of Quantities.
- 1.3.10 The Contractor shall make all necessary arrangements for protecting from rains, fog or likewise extreme weather conditions, the work already executed and for carrying out further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account and also no claims for hindrance shall be entertained on this account.
- 1.3.11 In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained notwithstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any. Further, no claims for hindrance shall be entertained on this account.
- 1.3.12 The contractor will take reasonable precautions to prevent his workman and employees from removing and damaging any flora (plant/vegetation) from the project area.

1.4 SETTING OUT

- (i) The Contractor shall carry out survey of the work area, at his own cost, setting out the layout of building in consultation with the Engineer –in-Charge & proceed further. Any discrepancy between architectural drawings and actual layout at site shall be brought to the notice of the Engineer –in-charge. It shall be responsibility of the Contractor to ensure correct setting out of alignment. Total station survey instruments only shall be used for layout, fixing boundaries, and centre lines, etc., Nothing extra shall be payable on this account.
- (ii) The Contractor shall establish, maintain and assume responsibility for grades, lines, levels and benchmarks. He shall report any errors or inconsistencies regarding grades, lines, levels, dimensions etc. to the Engineer –in-Charge before commencing work. Commencement of work shall be regarded as the Contractor’s acceptance of such grades, lines, levels, and dimensions and no claim shall be entertained at a later date for any errors found.
- (iii) If at any time, any error appears due to grades, lines, levels and benchmarks during the progress of the work, the Contractor shall, at his own expense rectify such error, if so required, to the satisfaction of the Engineer –in-Charge. Nothing extra shall be payable on this account.

- (iv) Though the site levels are indicated in the drawings the Contractor shall ascertain and confirm the site levels with respect to benchmark from the concerned authorities. The Contractor shall protect and maintain temporary/ permanent benchmarks at the site of work throughout the execution of work. These benchmarks shall be got checked by the Engineer-in-Charge or his authorized representatives. The work at different stages shall be checked with reference to bench marks maintained for the said purpose. Nothing extra shall be payable on this account.
- (v) The approval by the Engineer-in-Charge, of the setting out by the Contractor, shall not relieve the Contractor of any of his responsibilities and obligation to rectify the errors/ defects, if any, which may be found at any stage during the progress of the work or after the completion of the work.
- (vi) The Contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignments, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the Contractor at his own cost to the entire satisfaction of the Engineer-in-Charge.
- (vii) The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, center lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account, unless otherwise mentioned in the schedule of quantities.

1.4.1 The rate of items of flooring is inclusive of providing sunken flooring in bathrooms, kitchen etc. and nothing extra on this account is admissible.

1.4.2 A site laboratory with the minimum equipments as specified in CPWD specifications/in this agreement shall be established, made functional and maintained within one month from the award of work as per Annexure-I at page no.44 without any extra cost to the Institute. In case of non compliance / delay in compliance in this, a recovery @ Rs. 1000/- per day will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

The agency should make temporary arrangement for sewage disposal, water supply and electricity for completed building to make them to functional in case permanent arrangements are not ready.

Technical submittals of manufacturer's catalogues and technical data shall be submitted for approval. The contractor shall designate an Engineer responsible for issue and preparation of shop drawings and control of GFC drawings.

1.5 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 Institute 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.

1.6 ROYALTY

Royalty at the prevalent rates shall be paid by the Contractor or his material suppliers as per the terms of supply between them, on all materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine sand, moorum, river sand, gravels and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Further, contractor needs to submit proof of submission of full royalty to the state government or local authority. Nothing extra shall be payable on this account.

1.7 PRESERVATION AND CONSERVATION MEASURES

- (i) Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services, if any, encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. In case the same are to be removed and diverted, expenditure incurred in doing so shall be payable to the contractor. The contractor shall work out the cost, get the same approved by Engineer-in-Charge before taking up actual execution. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
- (ii) All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on project location during excavation/construction shall be the property of the Institute, and shall be dealt with as per provisions of the relevant legislation. The contractor will take reasonable precaution to prevent his work men or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer-in-charge of such discovery and carry out the official instructions of Engineer-in-charge for dealing with the same, till then all work shall be carried out in a way so as not to disturb/damage such article or thing.

1.8 RESPONSIBILITY

- (i) He shall protect and indemnify the Institute, Project Management Consultant (PMC) and Master Plan Designer (MPD) 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.
- (ii) 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.
- (iii) The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the Institute, PMC and Master Plan Designer (MPD) from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Institute, PMC and Master Plan Designer (MPD) 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 Institute, PMC and Master Plan Designer (MPD) in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

1.9 CO-OPERATION WITH OTHER CONTRACTORS/SPECIALIZED AGENCIES/SUBCONTRACTORS, PROJECT MANAGEMENT CONSULTANT AND MASTER PLAN DESIGNER (MPD)

- (i) The Contractor shall take all precautions to abide by the environmental related restrictions imposed by any statutory body having jurisdiction in on work site as well as prevent any pollution of streams, ravines, river bed and waterways. All waste or superfluous materials shall be transported by the Contractor, entirely to the satisfaction of the Engineer- in-Charge and disposed at designated places only. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claims what so ever on account of site constraints mentioned above or any other site constraints, lack of public transport, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non-availability of construction machinery spare parts and any other constraints not specifically stated here, shall be entertained from the Contractor.

Therefore, the tenderers are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

- (ii) The Contractor shall cooperate with and provide the facilities to the sub-Contractors and other agencies working at site for smooth execution of the work. The contractor shall indemnify the Institute, PMC and Master Plan Designer (MPD) against any claim(s) arising out of any disputes. The Contractor shall:
- (i) Allow use of scaffolding, toilets, sheds etc.

- (ii) Properly co-ordinate their work with the work of other Contractors.
 - (iii) Provide control lines and benchmarks to his Sub-Contractors and the other Contractors.
 - (iv) Provide electricity and water at mutually agreed rates.
 - (v) Provide hoist and crane facilities for lifting material at mutually agreed rates.
 - (vi) Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.
 - (vii) Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall scheduled completion.
 - (viii) Resolve the disputes with other Contractors/ sub-contractors amicably and the Engineer-in-Charge shall not be made intermediary or arbitrator.
- (iii) The work should be planned in a systematic manner so as to ensure proper coordination of various disciplines viz. sanitary & water supply, drainage, rain water harvesting, electrical, fire fighting, information technology, communication & electronics and any other services.
- (iv) Other Associated agencies will also simultaneously execute and install the works of sub-station / generating sets, air-conditioning, lifts, etc. for the work if required and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required.
- (v) The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-In-Charge and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and in a proper co-ordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

1.10 SUPERVISION OF WORK

- 1.10.1 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 Project Site 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.

1.10.2 Principle Technical representative of the Contractor having minimum fifteen years of 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 of Rs. 60,000/- (Rupees Sixty Thousand Only) per month shall be affected from the Contractor in the event of not fulfilling this provision.

1.10.3 Specialized Agencies

- (i) The composite tender comprises of Civil works. The list of specialized items for civil works which are to be got executed through specialized agencies are as below:

CIVIL WORKS:

.building construction /civil Works.

1.11 RATES

- I. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work, profile, setting lay out on ground, establishment of reference bench mark(s), installing various signage, taking spot levels, with total station, construction of all safety and protection devices, compulsory use of helmet and safety shoes, and other appropriate safety gadgets by workers, imparting continuous training for all the workers, barriers, preparatory works, construction of clean, hygienic and well ventilated workers housings in sufficient numbers as per drawing supplied by Engineer in charge, working during monsoon or odd season, working beyond normal hours, working at all depths, height, lead, lift, levels and location, unless otherwise provided in the schedule of quantities, and any other unforeseen but essential incidental works required to complete this work. Nothing extra shall be payable on this account and no extension of time for completion of work shall be granted on these accounts.
- II. The rates quoted by the tenderer, shall be firm and inclusive of all taxes and levies **(Excluding GST)**
- III. No foreign exchange shall be made available by the Institute 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.
- IV. Ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in- Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on

these accounts. Before start of the work, the Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc.

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

1.12 SAFETY PRACTICES

- (i) 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.
- (ii) Necessary protective and safety equipments such as helmet, safety shoes, gloves etc. 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.
- (iii) 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.

1.13 QUALITY ASSURANCE

- (i) The proposed work is a prestigious campus development project and quality of work is of paramount importance. Contractor shall have to engage well-experienced skilled labour and deploy modern T&P and other equipment to execute the work. Many items like specialized flooring work, silicon sealant and backer rod fixing in expansion joints, factory made door- window shutters, proper slope maintaining in toilet units, sanitary- water supply installation,

water proofing treatment, etc. will specially require engagement of skilled workers having experience particularly in execution of such items.

- (ii) The contractor shall ensure quality 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.
- (iii) The Contractor shall submit, within 15 days after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer-in- Charge. All the materials to be used in the work, to make the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the Engineer-in-Charge. However, keeping the Quality Assurance in mind, the Contractor shall submit, on request from the Engineer-in-Charge, his own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, for approval of the Engineer-in-Charge.
- (iv) 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.
- (v) 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 contractor 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.

- (vi) All materials whether obtained from Govt. stores or otherwise shall be got checked by the Engineer-in-Charge or his authorized supervisory staff on receipt of the same at site before use.
- (vii) The contractor has to establish field laboratory at site including all necessary equipment for field tests as given in Schedule 'F'. All the relevant and applicable standards and specifications shall be made available by the contractor at his cost in the field laboratory. The contractor shall designate one of his technical representatives as Quality Assurance Engineer, who shall be responsible for carrying out all mandatory field/laboratory tests. The contractor shall also provide adequate supporting staff at his cost for carrying out field tests, packaging and forwarding of samples for outside laboratory tests and for maintaining test records.
- (viii) The tests, as necessary and where no field laboratory facilities are available, shall be conducted in the external laboratory approved by the Institute/PMC. For materials for which field-testing equipment is established at site, 90% of total tests shall be done at the laboratory established at site by contractor and remaining 10% in the reputed laboratories approved by Institute/PMC. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Institute or his authorized representative.
- (ix) All the registers of tests carried out at Site or in outside laboratories and all Material at Site (MAS) registers including cement register shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by Project Management Consultan. Contractor shall be responsible for safe custody of all the registers.
- (x) The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the PMC 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 PMC, at such time and to such places, as directed by the PMC. Nothing extra shall be payable for the above.
- (xi) 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.
- (xii) All the testing charges shall be borne by the contractor.

- (xiii) 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.
- (xiv) The contractor shall have to execute guarantee bonds in respect of water proofing works as per Performa enclosed.
- (xv) The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also all the water required for testing various electrical installations, fire pumps, wet riser / fire fighting equipments, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

1.14 SUBMISSION AND DOCUMENTATION

- (i) 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 R/A Bill of the Contractor.
- (ii) The contractor shall make available a digital copy (Autocad & pdf) and four (04) sets of computerized Standard Measurement Books (SMBs) having measurement of all the permanent standing in a building.
- (iii) The Performance Guarantee shall not be released to the contractor until the after final completion of work are submitted to the Engineer-in-Charge

Submission of Progress Reports:

- (i) Apart from the above integrated program chart, the contractor shall be required to submit monthly progress report of the work in a computerized form on 1st of every month. The progress report shall contain the following, apart from whatever else may be required as specified above:
 - (a) 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 has to be submitted in every monthly progress report.
 - (b) 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.
- (c) 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 advance payment received, extra/substituted/deviation items if any, etc.
- (d) In case of non compliance / delay in compliance in submission of fortnightly, a penalty @ Rs. 5000/- per fortnightly report will be imposed which will be recovered from the immediate next R/A Bill of the Contractor.

1.15 PROJECT REVIEW MEETINGS:

The contractor, immediately on award of work shall submit details of his key personnel to be engaged for the work at site. In addition, he shall furnish the Engineer- in-charge detailed organogram involved with the work.

The contractor shall present the programme and status at various review meetings as required.

- i) Weekly Review Meetings: Shall be attended by Local Team headed by Project-in-charge

Agenda	<ul style="list-style-type: none"> (a) Weekly programme v/s actual achieved in the past week and programme for next week. (b) Remedial actions and hold up analysis. (c) Any decision on queries raised by contractor
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- ii) Monthly Review Meetings : Shall be attended by Project – in – charge and the Management Representative with authority to take independent decisions.

Agenda	<ul style="list-style-type: none"> (i) Progress Status/Statistics. (ii) Completion Outlook. (iii) Major hold ups/slippages. (iv) Assistance required. (v) Critical issues. (vi) Any decision on queries raised either by Contractor (vii) Anticipated cash flow requirement for next two
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1.16 TEMPORARY WATER/ ELECTRICITY/ TELEPHONE CONNECTION

- (i) Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department. Also, all initial cost and running charges, and security deposit, if any, in this regard shall be borne by him. The Contractor shall abide by all the rules/bye laws applicable in this regard and he shall be solely responsible for any penalty on account of violation of any of the rules/byelaws in this regard. Nothing extra shall be payable on this account.
- (ii) The Contractor shall be responsible for maintenance and watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Institute and its representatives against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account. Nothing extra shall be payable on this account.
- (iii) The Institute shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electric supply shall be made by the Contractor for Commencement and smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

1.17 CLEANLINESS OF SITE

- (i) The Contractor shall not stack building material/malba/muck on the land or road of the local development authority or on the land owned by the others, as the case may be. The muck, malba, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account. In the event the Contractor is found stacking the building material/malba as stated above, the Contractor shall be liable to pay the stacking charges/penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer –in-Charge shall be at liberty to recover such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.
- (ii) The contractor shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed.
- (iii) The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shall take all care to prevent any water- logging at site. The waste water, slush etc. shall not be allowed to be collected at site. It may be directly pumped into the natural drainage channels with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from relevant

authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.

1.18 INSPECTION OF WORK

- (i) In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by officers of Institute, Project Management Consultant, and any other consultants/advisors/committees appointed by the Institute. 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, ensure the presence of Principal Technical Representative to be present to receive the orders and instructions.

- (ii) Inspection of the work by Institute.

- (a) The Engineer-in-charge or his representative shall be inspecting the works including workshops and fabrication factory to ensure that the works in general being executed according to the design, and specifications laid down in the contract.
- (b) The Engineer-in-charge shall certify on completion of work that it has been carried out according to the approved specifications.
- (iii) Officers of the Central Ministries, Departments, or Institute shall be inspecting the on-going work at site at any time with or without prior intimation. The contractor shall, therefore, keep updated the following requirements and detailing.
 - (i) Display Board showing detail of work, weekly progress achieved with respect to targets, reason of shortfall, status of manpower, wages being paid for different categories of workers.
 - (ii) Entrance and area surrounding to be kept cleaned.
 - (iii) Display layout plan key plan, Building drawings including plans, elevations and sections.
 - (iv) Upto date displays of Bar chart, CPM and PERT etc.
 - (v) Keep details of quantities executed, balance quantities, deviations, possible Extra item, substituted Item etc.
 - (vi) Keep plastic / cloth mounted,
 - (vii) Set of Helmets and safety shoes for exclusive use for officers/dignitaries visiting at site.

1.19 REFUND OF PERFORMANCE GUARANTEE

The performance guarantee for the work shall be refunded to the contractor soon after the completion of the entire works under this agreement and recording of the completion certificate for such agreement and submission of completion plans.

1.20 DEFECT LIABILITY PERIOD (REFUND OF SECURITY DEPOSIT)

The defect liability / maintenance period shall be 12 months after the date of completion of work except in case of components of works for which a separate defect liability / maintenance period has been specified elsewhere in the tender document. The Security Deposit shall be released after the expiry of defect liability

period and for this the contractor shall have to produce a certificate from the Project Management Consultant and Engineer-in-Charge, but subject to other provisions specified elsewhere in the contract agreement.

1.21 GENERAL CLARIFICATIONS

- (i) 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.
 - (ii) 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.
 - (iii) All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries.
 - (iv) Coarse sand should be obtained from approved sources. The same shall be clean and sharp angular grit type. The coarse sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications. Nothing extra shall be payable on this account.
 - (v) 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, duties, levies etc. required for execution of the work.
- (i) In trenches where surface water is likely to percolate during monsoons, a ring bund of puddle clay or by any other means shall be formed outside, to the required height, and maintained by the Contractor. Also, suitable steps shall be taken by the Contractor to prevent back flow of pumped water into the trench. Nothing extra shall be payable on this account.

1.22 INSURANCE POLICIES

Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Engineer-in-Charge proper Contractor All Risk Insurance Policy for an amount equivalent to contract value plus 10%, 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 Institute or its representatives 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 Rs. 10 lakhs (Rupees Ten Lakhs only) for each accident, with number of occurrence of atleast four, 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 Institute 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.

1.23 TRAINING OF THE PERSONNEL

- 1.23.1 The contractor shall arrange at no extra cost to the Department to train two persons from the Institute and two person from the Project Management Consultant, one each for civil works, on how to operate and carryout preventive maintenance of the systems civil work) . The contractor shall arrange this training from well qualified and experience personnel for at least seven days.

1.24 APPLICABLE PERMITS

- 1.24.1 The contractor(s) shall give to the municipal corporation, police and other authorities, all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be levied on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night.
- 1.24.2 The contractor shall ensure that applicable permits mandated by the local bodies and in case warranted for this work are obtained as required under the Applicable Laws. An indicative but not exhaustive list of some of the applicable permits are mentioned below for the guidance of the Contractor.

1.25 RECORDING OF HINDRANCE & MAINTENANCE OF HINDRANCE REGISTER

- (i) Whenever any hindrance whether on part of Institute or on part of contractor, comes to the notice of the Project Management Consultant, he shall at once make a note of such hindrance in the register kept at site, and immediately make a report to the Engineer-in-charge within a week.
- (ii) The following points shall be kept in mind while entering the hindrances in the Hindrance Register:
- a) The entry of date of start of hindrance and date of removal of hindrance shall be made on the same day as the hindrance takes place or the cause of the hindrance is removed, respectively.

- b) The Engineer-in-charge shall work out the over lapping period, net if hindrance and of each hindrance within 15 days of removal of the cause of hindrance.
- c) The items of work affected due to any hindrance shall be clearly mentioned in the Hindrance Register by the Project Management Consultant, and the weightage shall be allowed on this basis.
- d) Each hindrance shall be entered in the hindrance Register, which shall be authenticated by the Engineer-in-charge, PMC and Contractor.
- e) The hindrance on part of contractor shall also to be entered in the Hindrance Register.
- f) The hindrance shall be recorded carefully in the Hindrance Register after considering its effect on completion of work.
- g) Review of hindrance register shall be compulsory at the time of payment of each Running Account Bill and final bill and certificate shall be recorded that all up to date hindrances on part of Institute and contractor have been recorded in the hindrance register.
- h) The net delay on part of Institute or contractor shall be worked out after considering all the hindrances recorded in the hindrance register.

1.26 SAFETY, HEALTH AND ENVIRONMENT

Over and above the provisions made in Safety Code (part of General Conditions of Contract) the following will also be applicable:

In respect of all workmen directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractor shall at his expense arrange for the safety provisions as per Indian Standard Safety codes shown below and shall at his own expense provide for all facilities in connection there with. In case the contractor fails to make arrangement and provide necessary facilities, he shall be liable to pay compensations prescribed under Workmen's Compensation Act 1923 as amended from time to time for each default and in addition the Engineer-in-charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the cost incurred on that behalf from the contractor, and no claims what so ever shall be entertained.

Details regarding some special provisions to be followed by contractor are as follows:

- a) Usage of quality Personal Protection Equipments (PPEs) through approved vendors. PPEs would include amongst others the following items:
 - Safety Helmets.
 - Hearing Protection.
 - Respiratory Protection.
 - Eye Protection.
 - Protective Gloves.
 - Safety Footwear.
 - High Visibility Clothing (Jacket)

All the items should be got approved before issued to the use in the work.

The contractor shall provide all the PPE (Personnel Protective Equipment) and safety appliances required to carry out the job to all the workmen deployed by the contractor and also ensure that his workmen use those PPE and safety appliances while on the job. The contractor shall not pay any cash amount in lieu of PPE to the workers/sub-contractors and expect them to buy and use during work. If the contractor fails to ensure provision of safety appliances and its workmen do not use the PPE and safety appliances as needed for safe working, the Engineer-in-charge may ask the contractor to stop the work and comply with safety requirements first. The contractor shall at all time maintain a minimum of 10% spare PPEs and safety appliances and properly record and show to the Engineer-in-charge during the inspections. Failing to do so shall invite appropriate compensations as per the provisions of under Workmen's Compensation Act 1923 as amended from time to time.

It is always the duty of the contractor to provide required PPEs for all visitors. Towards this required quantity of PPEs shall be kept always at the security post.

Colour coding for helmets

Safety Helmet Color Code	Person to use
White	Staff of IIM, Project Management Consultant and) and their Consultants
Violet	Main Contractors (Engineers / Supervisors)
Blue	All Sub-contractors (Engineers / Supervisors)
Red	Ele (Both Contractor and Sub-ctri contractor) cia ns
Green	Safety Professionals (Both Contractor and Sub- contactor)
Orange	Security Guards / Traffic marshals
Yellow	All workmen
White (with "VISITOR" sticker)	Visitors

b) Lifting appliances and gears.

The contractor shall maintain a register for record of examinations and test details of all lifting appliances. This register should also contain a system of identification of all tools and tackles, its date of purchase, safe working load etc. Contractors can utilize the services of any competent person as defined in Factories Act, 1948 and approved by Chief Inspector of Factories with the permission of the Employer.

c) Automatic safe load indicators

Every lifting appliances and gears like cranes, hydras etc, if so constructed that the safe working load may be varied by raising or lowering of the jib or otherwise shall be attached with an automatic indicator of safe working loads approved by Bureau of Indian standards/ International certifying bodies which gives a warning to the operator and arrests further movements of the lifting parts.

d) Qualification of operator of lifting appliances and of signaller etc.

The contractor shall not employ any person to drive or operate a lifting machine like crane, hydra etc whether driven by mechanical power or otherwise or to give signals to work as a operator of a rigger or derricks unless he is above twenty-one years of age and possesses a valid heavy transport vehicle driving license as per Motor Vehicle Act and Rules, is absolutely competent and reliable, possesses the knowledge of the inherent risks involved in the operation of lifting appliances by undergoing a formal training at any institution of importance and is medically examined periodically.

1.27 EXISTING SERVICES

- 1.27.1 Existing drains, pipes, electricity cables, overhead wires and telephone cables, sewer lines, water lines and similar services encountered in the course of the execution of the work shall be protected/ maintained against the damage by the contractor. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. In case temporary shifting/supporting of such services is required to facilitate the work, the contractor at no extra cost shall do the same. The decision of the Engineer-in-Charge in this regard shall be final and binding.
- 1.27.2 All works pertaining to services including rerouting/diversion of services, routine testing, installation etc., completed in one or more than one process shall be subject to examination and approval at each stage thereof by the Engineer-in-charge or concerned department as would be notified by the Engineer-in-charge or his authorized representative when such stage is ready. In default of such notice the Engineer-in-Charge shall be entitled to appraise the quantity and extent thereof and the decision of Engineer-in-Charge or his authorized representative in this regard shall be final and binding.
- 1.27.3 For utilities which are required to be removed or **permanently shifted** to new position in the opinion of the Engineer-in-charge, shall be removed / shifted by the contractor in consultation with the service provider agency. Payment for this shall be made as per terms and conditions of the contract. No claim for delay or otherwise due to above reasons shall be entertained on this account.
- 1.27.4 The contractor shall make his own arrangement for the disposal of the spoils, waste of bentonite, all dismantled material, slush and foul materials, surplus earth to such place where the same shall not cause nuisance or any environmental problems anywhere and should be acceptable to the authorities concerned. No extra claim whatsoever shall be entertained due to above. The road connected to site should be kept free of nuisance or environmental problems.

- 1.27.5 The contractor shall make his own arrangement at his own cost for the provision of telephone facilities at the site of works or at any other place.
- 1.27.6 The contractor shall make his own arrangements for obtaining electric & water connection(s) if required and make necessary payment directly to department

concerned. The Institute will however make all reasonable recommendations to the authority concerned in this regard.

- 1.27.7 The Contractor shall construct and provide, at location to be approved by Engineer-in-charge, the following infrastructure for the exclusive use of the staff/representatives of the Institute, engaged for supervision of Project.
- (a) Office space with a minimum carpet area of 600 sqft and office furniture for 8-10 persons
 - (b) Toilet facility with two European WCs and two urinals
 - (c) The above facilities should have lighting and ventilation facilities including air-conditioning.
 - (d) The contractor shall maintain the infrastructure and bear all expenses on account of housekeeping, maintenance, water and electricity.

Nothing extra shall be payable to the contractor for constructing, providing and maintaining the above support infrastructure, which shall not be removed after completion of the project.

- 1.27.8 The contractor shall bear all incidental charges for cartage, storage and safe custody of materials brought to site.
- 1.27.9 The work shall be carried out in accordance with the Architectural drawings, structural and 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, structural drawing and services issued for the work, nomenclature of items, specifications etc. and satisfy himself that the information available there from is complete and unambiguous. The figures & the written dimensions of the drawing shall supercede the measurement by scale. The discrepancy, if any, shall be brought to the notice of the Engineer-In-Charge for immediate decision 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 on this account.
- 1.27.10 Construction Worker's Welfare Cess as applicable shall be deducted from payments made to the contractor.
- 1.27.11 The contractor shall have registration with EPFO and ESIC. The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor.

2.0.1 Procurement of Construction Materials

- (i) All vehicles delivering construction materials to the site shall be covered to avoid spillage of materials and maintain cleanliness of the roads.
- (ii) Wheel Tyres of all vehicles used by of the contractor, or any of his sub contractor or materials suppliers 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.
- (iii) 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.

2.0.2 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 respective Pollution Control Board.

2.0.3 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.

- (i) 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.
- (ii) For controlling the noise from Vehicles, Plants and Equipments, the Contractor shall confirm the following:
- (iii) All vehicles and equipment used in construction will be fitted with exhaust silencers.
- (iv) 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.
- (v) Noise emission from compactors (rollers), front loaders, concrete mixers, cranes (movable), vibrators and saws should be less than 75 dB(A).
- (vi) As per the standards/guidelines for control of Noise Pollution from Stationary Diesel Generator (DG) sets, noise emission in dB(A) from DG Sets (2-1010 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) each as mandatory.

2.0.4 Personal Safety Measures for Labour

Contractor shall provide the following items for safety of workers employed by contractor and associate agencies:

- (i) Protective footwear / helmet and gloves to all workers employed for the work on mixing cement, lime mortars, concrete etc. and openings in water pipeline/sewer line.

- (ii) Welder's protective eye-shields to workers who are engaged in welding works.
 - (iii) Safety helmet and Safety harness/ belt.
 - (iv) 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.
 - (v) All the workers should be wearing helmet and shoes all the time on site.
 - (vi) Masks and gloves should be worn whenever and wherever required.
 - (vii) Full time workers (if any with the approval of Engineer-in-Charge) residing on site should be provided with clean and adequate temporary hutment.
 - (viii) First aid facility should also be provided.
 - (ix) Overhead lifting of heavy materials should be avoided. Barrow wheel and hand-lift boxes should be used to transport materials onsite.
 - (x) Tobacco and cigarette smoking should be prohibited onsite.
 - (xi) All dangerous parts of machinery are well guarded and all precautions for working on machinery are taken.
 - (xii) 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.
 - (xiii) Use of durable and reusable formwork systems to replace timber formwork and ensure that formwork where used is properly maintained.
 - (xiv) 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.
 - (xv) Provide measure to prevent fire. Fire extinguisher and buckets of sand to be provided in fire-prone area and elsewhere.
 - (xvi) Provide sufficient and suitable light for working during night.
 - (xvii) Ensure that measures to protect workers from materials of construction, transportation, storage and other dangers and health hazards are taken
 - (xviii) Ensure that the construction firm/division/company have sound safety policies.
 - (xix) Comply with the safety procedure, norms and guidelines (as applicable) as outlined in NBC 2005 (BIS 2005c).
 - (xx) Adopt additional best practices and prescribed norms as in NBC 2005 (BIS2005).
- 2.0.5 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.
- 2.0.6 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.
- 2.0.7 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.

2.0.8 Ensure that water spraying is carried out by wetting the surface by spraying water on:

- (i) Any dusty material.
- (ii) Areas where demolition work is carried out.
- (iii) Any unpaved main-haul road and.
- (iv) Areas where excavation or earth moving activities are to be carried out.

2.0.9 The contractor shall ensure the following:

- (i) Cover and enclose the site by providing dust screen, sheeting or netting to scaffold along the perimeter of a building.
- (ii) Covering stockpiles of dusty material with impervious sheeting.
- (iii) Covering dusty load on vehicles by impervious sheeting before they leave the site.
- (iv) Transferring, handling/storing dry loose materials like bulk cement and dry pulverized fly ash inside a totally enclosed system.
- (v) 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.
- (vi) Clear vegetation only from areas where work will start right away.
- (vii) Vegetate / mulch areas where vehicles do not ply.
- (viii) Apply gravel/landscaping rock to the areas where mulching/paving is impractical.

2.0.10 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).

2.0.11 Provide safety barricading of site by drawing ribbon band along the site boundary, next to a road or other public area.

2.0.12 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.

2.0.13 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. Inert and Hazardous waste must be collected and stored separately from site. Proper training must be given to all construction workers in order to train

them to be able to handle different kind of waste on site. In addition to segregating the inert and hazardous waste, it is also important to either reuse the construction waste on site or safely dispose it off to designate agencies for recycling.

- 2.0.14 The contractor should 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 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.
- 2.0.15 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.
- 2.0.16 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.
- 2.0.17 A soil Erosion and Sedimentation Control Plan (ESCP) should be prepared prior to construction and should be applied effectively.
- 2.0.18 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.
- 2.0.19 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).
- 2.0.20 All lighting installed by the contractor around the site and at the labour quarters during work shall be energy efficient fixtures of the appropriate illumination levels. This condition is a must, unless specifically prescribed otherwise.

3.0 SPECIAL CONDITIONS FOR ENVIRONMENT MANAGEMET PLAN

- a. The contractor shall obtain approval for laying electrical lines from the electricity distribution utility and comply with the provisions as per Terms and Conditions for Supply of Electricity, for construction purpose as well as for final connection.
- b. The contractor shall ensure taking necessary steps on urgent basis to improve the living conditions of the labour at site and provide necessary facility to the labour.
- c. Contractor has to construct housing colony for labour within the site with all necessary infrastructure and facilities such as health facility, sanitation facility, and fuel for cooking, along with safe drinking water, medical camps, and toilets for women, crèche for infants. The housing may be in the form of temporary structures to be removed after the completion of the project. Details of provisions should be submitted to Engineer In charge for approval.
- d. During work period, mobile STP of required capacity shall be provided by the contractor for the labour colony. The drains should be of adequate capacity and be lined till the final disposal points. Provision for disinfection of wastewater after treatment and before reuse to be ensured by the contractor.
- e. All required sanitary and hygienic measures shall be in place before starting construction activities. The safe disposal of wastewater and solid waste generated during the Construction phase shall be ensured.
- f. All the Labourers engaged for construction shall be screened for health and adequately treated before engaging them to work at the site.
- g. All the topsoil excavated during the construction shall be stored for use in horticulture/landscape development within the project site.
- h. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people only in approved sites with approve competent authority.
- i. The contractor shall ascertain that there is no threat to the ground water quality by leaching of heavy metals and other toxic contaminants during construction will test soil and ground water samples.
- j. Construction spoils, including bituminous material and other hazardous materials must not be allowed to contaminate water courses and the dump sites for such material must be secured so that they do not leach into the ground water.
- k. The diesel generator sets to be used during construction phase shall be of low-sulphur- diesel type and shall conform to Environment (Protection) Rules for

air and noise emission standards.

- l. Vehicles hired for bringing construction material and Labourers to the site shall be in good conditions and shall conform to applicable air and noise emission standards and shall be operated during non-peak/approved hours.
- m. Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase.
- n. Water demand during construction shall be reduced by the use of pre-mixed concrete, curing agents and other best practices.
- o. Adequate measures shall be taken to reduce air and noise pollution during construction as per CPCB norms.
- p. A First Aid Room should be provided at the project site during construction phase of the project.
- q. Any hazardous waste generated during construction phase shall be disposed of as per applicable rules and norms with necessary authorization of the Haryana State Pollution Control Board.
- r. Regular supervision of the above and other measures for monitoring shall be done by Engineer In charge throughout the construction phase, so as to avoid nuisance to the surroundings.

PART-C
CIVIL WORKS-

PARTICULAR SPECIFICATIONS (CIVIL)**1. CEMENT**

- 1.1 The contractor shall procure 43 grade (conforming to IS:5112) Ordinary Portland Cement / Portland Pozzolona Cement (PPC) [conforming to IS:1489(Part I)], with a flyash content of 28% or more as required in the the work, from reputed manufacturers of cement having a production capacity of one million tonnes per annum or more such as **ACC, Ultratech, Ambuja, Century Cement and J. K. Cement, or from any other reputed cement manufacturer having a production capacity not less than one million tones per annum and as approved by Engineer-in-charge.** Supply of cement shall be taken in 50kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer- in-Charge to do so. Every fresh cement batch should be brought to site atleast 30 days before they are to be used / consumed in the work.
- 1.2 Every delivery of cement shall be accompanied by producer's certificate confirming that the supplied cement conforms to relevant specifications. These certificates should be endorsed to Engineer-in-charge for his record.
- 1.3 For each grade, cement bags shall be stored in two separate godowns, one for tested cement and the other for fresh cement (under testing) constructed by the contractor at his own cost as per sketch given in General Conditions of Contract with weather proof roofs and walls. The actual size of godown shall be as per site requirements and as per the direction of the Engineer in charge and nothing extra shall be paid for the same. The decision of the Engineer-in-charge regarding the capacity required/needed will be final. However, the capacity of each godown shall not be less than 250 tonnes or as decided by Engineer-In-Charge.
- 1.4 Each godown shall be provided with a single door with two locks. The keys of one lock shall remain with CPWD Engineer-in-charge or his authorized person and that of other lock with the authorized agent of the contractor at the site of work so that the cement is issued from godown according to the daily requirement with the knowledge of both the parties. The account of daily receipt and issue of cement shall be maintained in a register in the prescribed Performa and signed daily by the contractor or his authorized agent in token of its correctness. The contractor shall be responsible for the watch & ward and the safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in- charge any time.
- 1.5 The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost

to testing laboratories. The frequency and details of the tests shall be decided by the Engineer-in-Charge depending on the quantum of supply in each batch.

- 1.6 The cost of tests shall be borne by the contractor.
- 1.7 PPC (Portland Pozzolana Cement) shall be used in RCC structures in accordance with the circular issued by the Directorate General of Works vide No.CDO/SE(RR)/Fly Ash (Main)/102 dt.09.04.2009. The use of PPC shall be regulated as per the following conditions stipulated in the circular dt.09.04.2009:-
- a) IS:456-2000 Code of Practice for Plain and Reinforced Concrete (as amended upto date) shall be followed in regard to Concrete Mix Proportion and its production as under:
 - (i) The concrete mix design shall be done as "Design Mix Concrete" as prescribed in clause-9 of IS 456 mentioned above.
 - (ii) Concrete shall be manufactured in accordance with clause 10 of above mentioned IS:456 covering quality assurance measures both technical and organizational, which shall also necessarily require a qualified Concrete Technologist to be available during manufacture of concrete for certification of quality of concrete.
 - b) Minimum M25 grade or as specified of concrete shall be used in all structural elements of RCC, both in load bearing and framed structure.
 - c) The mechanical properties such as modulus of elasticity, tensile strength, creep and shrinkage of concrete using fly ash blended cements (PPCs) are not likely to be significantly different and their values are to be taken same as those used for concrete made with OPC.
 - d) To control higher rate of carbonation in early ages of concrete in PPC based concrete, water/binder ratio shall be kept as low as possible, which shall be closely monitored during concrete manufacture. If necessitated due to low water/binder ratio, required workability shall be achieved by use of chloride free chemical admixtures conforming to IS: 9103. The compatibility of chemical admixtures and super plasticizers with each set PPC received from different sources shall be ensured by trials.
 - e) In environment subjected to aggressive chloride or sulphate attack in particular, PPC based concrete is recommended. In case, where structural concrete is exposed to excessive magnesium sulphate, fly ash content shall be limited to 18% by weight. Special type of cement with low C3A content may also be alternatively used. Durability criteria like minimum binder content and maximum water/binder ratio also need to be given due consideration in such environment.

- f) Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot & arid regions, the minimum curing period shall be 14 days or its equivalent.
 - g) Subject to General Guidelines detailed out as above, PPC manufactured conforming to IS:1489 (Part-I) shall be treated at par with OPC for manufacture of Design Mix Concrete for structural use in RCC.
 - h) Till the time, BIS makes it mandatory to print the %age of fly ash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall supplied by the contractor.
 - i) While using PPC for structural concrete work, no further admixing of fly ash shall be permitted.
- 1.8 The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by the conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at rate so prescribed shall be made. In case of excess consumption no adjustment shall be made.
- 1.9 For non-schedule items, the decision of the Engineer-in-charge or successor thereof regarding theoretical quantity of cement which should have been actually used shall be final and binding on the contractor.
- 1.10 Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.
- 1.11 Damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-charge. If he does not do so within 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.
- 1.12 Cement register for the cement shall be maintained at site. The account of daily receipts and issues of cement shall be maintained in the register in the proforma prescribed and signed daily by contractor or his authorized agent.

2. STEEL

- 2.1 The contractor shall procure TMT bars of Fe500 grade from primary steel producers such as SAIL, Tata Steel Ltd., RINL, Jindal steel & Power Ltd., and JSW Steel Ltd, or any other producer as approved by Institute who are using iron ore as the basic raw material / input and having crude steel capacity of 2.0 Million tones per annum and above. The TMT bars procured from primary producers shall conform to manufacturer's specifications. The specifications of TMT bars procured from primary producers, shall meet the provisions of IS 1786: 2008 pertaining to Fe500 D grade of steel.
- 2.2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.
- 2.3 Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under para 2.1 above, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week's time of written orders from the Engineer-in-charge to do so.
- 2.4 The steel reinforcement bars shall be brought to the site in bulk supply of 5 tonnes or more or as decided by the Engineer-in-Charge.
- 2.5 The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- 2.6 For checking nominal mass, tensile strength, bend test, re-bend test, etc., specimen of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:-

Size of bar	For consignment below 100 Tonnes	For consignment over 100 Tonnes
Under 10mm dia	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16mm dia	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm dia	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

- 2.7 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.

- 2.8 The actual issue and consumption of steel on work shall be regulated and proper accounts shall be maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in as per Theoretical Consumption of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations, recovery at the rate so prescribed shall be made. In case of excess consumption, no adjustment needs to be made.
- 2.9 The steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.
- 2.10 For the purpose of payment, the actual weight of reinforcement steel shall be worked out as below:

To arrive at unit weight for the purpose of payment, three random samples each of 1 meter length shall be collected for each diameter of re-bar from every consignment received at site. Actual weight of three specimens for each diameter shall be taken and average weight calculated and recorded. The average weight so arrived at shall be compared with theoretical weight of that particular diameter of rebar. Actual or theoretical weight whichever is less shall be considered for making payment for that consignment. However final payment shall be made on the basis of weighted average of all the consignment. The decision of the Engineer-in-charge as regards the random samples and average weight shall be final and binding on the contractor and no claim of any kind shall be entertained in this regard.

3 STRUCTURAL STEEL

3.1 This specification covers the fabrication and transportation to site and erection on prepared foundations and structural steel work consisting of beams, columns, purlins, vertical trusses, bracings, shear connections etc.

3.2 Fabrication, erection and approval of steel structures shall be in compliance with: General Specifications mentioned in CPWD specifications and IS: 800 – 1984. For the guidance on general fabrication and erection of structural steel work, Chapter 11 of IS: 800 (1984) must be followed. As far as safety is concerned guidance could be obtained from Indian safety code for structural steelwork *IS: 7205(1974)*. Before the commencement of the erection, all the erection equipment tools, shackles, ropes etc. should be tested for their load carrying capacity. Such tests if needed may be repeated at intermediate stages also.

Drawings and supplementary drawings shall be supplied to the contractors during execution of the work.

3.3 Providing shop primer coat for steel structures. Grouting of holding-down bolt pockets and below base plates where required.

3.4 In case of conflict between the Clauses mentioned here and the Indian Standards, those expressed in this specification shall govern.

3.5 Scope

The fabrication and erection of the steel work consists of accomplishing of all jobs here-in enumerated including providing all labour, tools and plant all materials and consumables such as welding electrodes, bolts and nuts, oxygen and acetylene gases, oils for cleaning etc. of approved quality as per relevant IS. The work shall be executed according to the drawings, specifications, relevant codes etc. in an expeditious and workman like manner, as detailed in the specifications and the relevant Indian Standard Codes and Standard Practice and to the complete satisfaction of the Engineer-in-charge

3.6 Fabrication Drawings

- a. The contractor shall prepare all fabrication and erection drawings on the basis of design drawings supplied to him and submit the same in triplicate to the Engineer-in-charge for review, Engineer-in-charge shall review and comment, if any, on the same. Such review, if any, by the Engineer-in-charge, does not relieve the contractor of any of his required guarantees and responsibilities. The contractor shall however be responsible to fabricate the structural strictly conforming to specifications and reviewed drawings.
- b. Fabrication drawings shall include but not limited to the following:
 - Member sizes and details
 - Types and dimensions of welds and bolts
 - Shapes and sizes of edge preparation for welding
 - Details of shop and field joints included in assemblies.
- c. Bill of material

- Quality of structural steels, welding electrodes, bolts, nuts and washers etc. to be used.
 - Erection assemblies, identifying all transportable parts and sub-assemblies, associated with special erection instructions, if required.
 - Calculations where asked for approval.
- d. Connections, splices etc. other details not specifically detailed in design drawings shall be suitably given on fabrication drawings considering normal detailing practices and developing full member strengths. Where asked for calculations for the merit shall also be submitted for approval.
- e. Any alternate design or change in section is allowed when approved in writing by the Engineer-in-charge.
- f. However, if any variation in the scheme is found necessary later, the contractor will be supplied with revised drawings. The contractor shall incorporate these changes in his drawings at no extra cost and resubmit for review.
- g. Engineer-in-charge review shall not absolve the contractor of his responsibility for the correctness of dimensions, adequacy of details and connections. One copy will be returned reviewed with or without comments to the contractor for necessary action. In the former case further three copies of amended drawings shall be submitted by the contractor for final review.
- h. The contractor shall supply three prints each of the final reviewed drawings to the Engineer-in-charge within a week since final review, at no extra cost for reference and records.
- i. The Engineer-in-charge will verify the correct interpretation of their requirements.
- j. If any modification is made in the design drawing during the course of execution of the job, revised design drawings will be issued to the contractor. Further changes arising out of these shall be incorporated by the contractor in the fabrication drawings already prepared at no extra cost and the revised fabrication drawings shall be duly got reviewed as per the above Clauses.

3.7 Materials

(i) Rolled Sections

The following grades of steel shall be used for steel structures:

Structural steel will generally be of standard quality conforming to IS: 226/IS: 2062. Whenever welded construction is specified plates of more than 20 mm thickness will generally conform to IS: 2062.

(ii) Welding Materials

Welding electrodes shall conform to IS: 814.

Approval of welding procedures shall be as per IS: 823.

(iii) Bolts, Nuts & Washers

Bolts and nuts shall be as per IS: 1367 and tested as per IS: 1608. It shall have a minimum tensile strength of 44 Kg/mm² and minimum elongation of 23% on a gauge length of 5.65 (A- Original cross-sectional area of the gauge length). Washers shall be as per IS: 2016.

(iv) All materials shall conform to their respective specifications. The use of equivalent or higher grade or alternate materials will be considered only in very special cases subject to the approval of the Engineer-in-charge in writing.**(v) Receipt & Storing of Materials**

Steel materials supplied by the contractor must be marked for identification and each lot should be accompanied by manufacturer's quality certificate, conforming chemical analysis and mechanical characteristics. All steel parts furnished by supplier shall be checked, sorted out, straightened, and arranged by grades and qualities in stores.

Structurals with surface defects such as pitting, cracks, laminations etc. shall be rejected if the defects exceed the allowable tolerances specified in relevant standards or as directed by the chief Engineer-in-charge.

Welding wire and electrodes shall be stored separately by qualities and lots inside a dry and enclosed room, in compliance with IS: 816 - 1969 and as per instructions given by the Engineer-in-charge. Electrodes shall be perfectly dry and drawn from an electrode even, if required.

(vi) Checking of quality bolts of any kind as well as storage of same shall be made conforming to relevant standards.

Each lot of electrodes, bolts, nuts, etc. shall be accompanied by manufacturer's test certificate.

The contractor may use alternative materials as compared to design specification only with the written approval of the chief Engineer-in-charge.

(vii) Material Tests

The contractor shall be required to produce manufacturer's quality certificates for the materials supplied by the contractor. Notwithstanding the manufacturer's certificates, the Engineer-in-charge may ask for testing of materials in approved test houses. The test results shall satisfy the requirements of the relevant Indian Standards.

Whenever quality certificates are missing or incomplete or when material quality differs from standard specifications the contractor shall conduct all appropriate tests as directed by the Engineer-in-charge at no extra cost.

Materials for which test certificates are not available or for which test results do not tally with relevant standard specifications, shall not be used.

3.8 Fabrication

Fabrication shall be in accordance with IS: 800 Section V in addition to the following:

Fabrication shall be done as per approved fabrication drawings adhering strictly to work points and work lines on the same. The connections shall be welded or bolted as per design drawings. Work shall also include fabricating built up sections.

Any defective material used shall be replaced by the contractor at his own expense, care being taken to prevent any damage to the structure during removal.

All the fabricated and delivered items shall be suitably packed to be protected from any damage during transportation and handling. Any damage caused at any time shall be made good by the Contractor at his own cost.

Any faulty fabrication pointed out at any stage of work shall be made good by the contractor at his own cost.

a. Preparation of Materials

Prior to release for fabrication, all rolled sections warped beyond allowable limit shall be pressed or rolled straight and freed from twists, taking care that a uniform pressure is applied.

Minor warping, corrugations etc. in rolled sections shall be rectified by cold working. The sections shall be straightened by hot working where the Engineer-in-charge so direct and shall cooled slowly after straightening.

Warped members like plates and flats may be used as such only if wave like deformation does not exceed $L/1000$ but limited to 10 mm (L-Length).

Surface of members that are to be jointed by lap or fillet welding or bolting shall be even so that there is no gap between overlapping surfaces.

b. Marking

Marking of members shall be made on horizontal pads, of an appropriate racks or supports in order to ensure horizontal and straight placement of such members. Marking accuracy shall be at least + 1 mm.

c. Cutting

Members shall be cut mechanically (by saw or shear or by oxyacetylene flame). All sharp, rough, or broken edges, and all edges of joints which are subjected to tensile or oscillating stresses, shall be ground. No electric metal arc cutting shall be allowed.

All edges cut by oxyacetylene process shall be cleaned of impurities prior to assembly.

Cutting tolerances shall be as follows:

- a. For members connected at both ends + 1 mm.
- b. Elsewhere + 3 mm.

The edge preparation for welding of members more than 12 mm thick shall be done by flame cutting and grinding. Cut faces shall not have cracks or be rough. Edge preparation shall be as per IS : 823 - 1964.

d. Drilling

Bolts holes shall be drilled.

Drilling shall be made to the diameter specified in drawings.

No enlarging of holes filling, by mandrolling or oxyacetylene flame shall be allowed.

Allowed variations for holes (out-of-roundness, eccentricity, plumb-line deviation) shall be as per IS:800.

- Maximum deviation for spacing of two holes on the same axis shall be + 1 mm.
- Two perpendicular diameters of any oval hole shall not differ by more than 1 mm.

- e. Drilling faults in holes may be rectified by reaming the holes to the next upper diameter, provided that spacing of new hole centres and distance of hole centres to the edges of members are not less than allowed and that the increase of hole diameter does not impair the structural strength. Hole reaming shall be allowed if the number of faulty holes does not exceed 15% of the total number of holes for one joint.

WELDING:

Preparation of Members for Welding

- a. All welding in mild steel work shall be done with electrodes and / or by methods recommended by the suppliers of the metals being welded in accordance with corresponding Indian Standards. Type, *size* and spacing of welds, shall be as specified. All welding consumables shall be in accordance with the I.S. standards.
- b. Welds behind finished mild steel surfaces shall be so done as to eliminate distortion and / or discoloration on the finished side.
- c. Weld spatter and welding oxides on finished surfaces shall be removed by descaling and / or grinding. Plug, puddle or spot welding shall not be permitted. If weld beads are visible on exposed finished surfaces, the surfaces shall be ground and polished to match and blend with finish on adjacent parent metal.
- d. Structural welds shall be made by certified welders and shall conform to I.S. code. The welds shall be tested by the Contractor to ensure quality and integrity of the structural welds. However, welding tests shall be carried out as below: and the contractor shall maintain records for Visual testing – 100 % of the welds for size and quality. Fillet weld testing- 30 % of the welds for MPI or Dye penetration test
- e. Dirt grease, lubricant, or other organic material shall be removed by vapor degreasing or suitable solvent.
- f. Joints rejected because of welding defects may be repaired only by re welding. Defective welds shall be removed by chipping or machining. Flame cutting shall not be allowed.

Assembly of structural members shall be made with proper jigs and fixtures to ensure correct positioning of members (angles, axes nodes etc.)

Sharp edges, rust of cut edges, notches, irregularities and fissures due to faulty cutting shall be chipped or ground or filled over the length of the affected area, deep enough to remove faults completely.

Edge preparation for welding shall be carefully and accurately made so as to facilitate a good joint. Generally no special edge preparation shall be required for members under 8 mm thick.

Edge preparation (beveling) denotes cutting of the same so as to result in V, X K or U seam shapes as per IS: 823.

The members to be assembled shall be clean and dry on the welding edges. Under no circumstances shall wet, greasy, rust or dirt covered parts be assembled. Joints shall be kept free from any foreign matter likely to get in to the gaps between members to be welded.

Before assembly the edges to be welded as well as adjacent areas extending for at least 20 mm shall be cleaned (until metallic polish is achieved).

When assembling members, proper care shall be taken of welding shrinkage and distortions, as the drawing dimensions cover finished dimensions of the structure.

The elements shall be got checked and approved by the Engineer-in-charge or their authorised representative before assembly.

The permissible tolerances for assembly of members preparatory to welding shall be as per IS: 823-1964.

After the assembly has been checked, temporary tack welding in position shall be done by electric welding, keeping in view finished dimensions of the structure.

f. Welding procedures

Welding shall be carried out only by fully trained and experienced welders as tested and approved by the Engineer-in-charge. Any test carried out either by the Engineer-in-charge or their representative or the inspectors shall constitute a right by them for such tests and the cost involved thereon shall be borne by the contractor himself.

Qualification tests for welders as well as tests for approval of electrodes will be carried out as per IS: 823. The nature of test for performance qualification of welders shall be commensurate with the quality of welding required on this job as judged by the Engineer-in-charge.

The steel structures shall be automatically, semi-automatically or manually welded as per direction of Engineer-in-charge. Welding shall begin only after the checks mentioned in Clause herein have been carried out.

The welder shall mark with his identification mark on each element welded by him.

When welding is carried out in open air, steps shall be taken to protect the face of welding against wind or rain. The electrodes, wire and parts being welded shall be dry.

Before beginning the welding operation, each joint shall be checked to ensure that the parts to be welded are clean and root gaps provided as per IS: 823.

For continuing the welding of seems discontinued due to some reason, the end of the discontinued seem shall be melted in order to obtain a good continuity. Before resuming the welding operation, the groove as well as the adjacent parts shall be well cleaned for a length of approx. 50 mm.

For single butt welds (in V, 1/2 V or U) and double butt welds (in K, double U etc.) the rewelding of the root is mandatory but only the metal deposit on the root has been cleaned by back gouging or chipping.

The welding seams shall be left to cool slowly. The contractor shall not be allowed to cool the welds quickly by any other method.

For multi-layer welding, before welding the following layer, the formerly welded layer shall be cleaned metal bright by light chipping and wire brushing. Backing strips shall not be allowed.

The order and method of welding shall be so that -

- No unacceptable deformation appears in the welded parts.
- Due margin is provided to compensate for contraction due to welding in order to avoid any high permanent stresses.

The defects in welds must be rectified according to IS: 823 and as per instruction of Engineer-in-charge.

g. Weld Inspection

The weld seams shall satisfy the following:

- shall correspond to design shapes and dimensions.
- shall not have any defects such as cracks, incomplete penetration and fusion, under-cuts, rough surfaces, burns, blow holes and porosity etc. beyond permissible limits.

During the welding operation and approval of finished elements, inspections and tests shall be made as shown in annexure-B. The mechanical characteristics of the welded joints shall be as in IS: 823.

h. Preparation of Members for Bolting

The members shall be assembled for bolting with proper jigs and fixtures to sustain the assemblies without deformation and bending. Before assembly, all sharp edges, shavings, rust dirt, etc. shall be removed. Before assembly, the contacting surfaces of the members shall be cleaned and given a coat of primer as per IS: 2074. The members which are bolt assembled shall be set according to drawings and temporarily fastened with erection bolts (minimum 4 pieces) to

check the coaxiality of the holes. The members shall be finally bolted after the deviations have been corrected, after which there shall not be gaps. Before assembly, the members shall be checked and got approved by the Engineer-in-charge. The difference in thickness of the sections that are butt assembled shall not be more than 3% or maximum 0.8 mm whichever is less. If the difference is larger, it shall be corrected by grinding or filling. Reaming of holes to final diameter or cleaning of these shall be done only after the parts have been check assembled. As each hole is finished to final dimensions (reamed if necessary) it shall be set and bolted up. Erection bolts shall not be removed before other bolts are set.

- i. Bolting up
Final bolting of the members shall be done after the defects have been rectified and approval of joints obtained. The bolts shall be tightened starting from the centre of joint towards the edge.
- j. Planning of Ends
Planning of ends of members like column ends shall be done by grinding when so specified in the design. Planning of butt welded members shall be done after these have been assembled, the spare edges shall be removed with grinding machines or files. The following tolerances shall be permitted on member that has been planed.
 - On the length of the member having both ends planed, maximum + 2 mm with respect to design.
 - Level differences of planed surfaces, maximum 0.3 mm.
 - Deviation between planed surface and member's axis maximum 1/1500.
- k. Holes for Field Joints
Holes for field joints shall be drilled in the shop to final diameters and tested in the shop, with trial assemblies. When three-dimensional assembly is not possible in the shop, the holes for field joints may be drilled in shop and reamed on site after erection, on approval by the Engineer-in-charge .For bolted steel structures, trial assembly in shop is mandatory. The tolerance for spacing of holes shall be + 1 mm.
- l. Tolerances
All tolerances regarding dimensions, geometrical shapes and sections of steel structures, shall be as per Annexure B, if not specified in the drawing.
- m. Marking for Identification
All elements and members prior to despatch for erection shall be shop marked. The members shall be visibly marked with a weather proof light coloured paint. The size and thickness of the numbers shall be chosen as to facilitate the identification of members. For the small members that are delivered in bundles or crates, the required marking shall be done on small metal tags securely tied to the bundle, while the crates shall be marked directly. Each bundle or crate shall be packed with members for one and the same assembly; in the same bundle or crate, general utility members such as bolts, quests etc. may be packed. All bill of

materials showing weight, quality and dimension of contents shall be placed in the crates.

The members shall be marked with a durable paint, in a visible location, preferably at one end of the member so that these may be easily checked during storage and erection. All members shall be marked in the shop before inspection and acceptance. When the member is being painted, the marking area shall not be painted but bordered with white paint. The marking and job symbol shall be registered in all shop delivery documents (transportation, for erection etc.)

n. **Shop Test Pre-assembly**

For steel structures that have the same type of welding the shop test pre- assembly shall be performed on one out of every 10 members minimum. For bolted steel structures, shop test pre-assembly is mandatory for all elements as well as for the entire structure in conformity with previous Clause.

3.9 Shop Inspection and Approval

a. **General**

The Engineer-in-charge or their representative shall have free access at all responsible times to the contractors fabrication shop and shall be afforded all reasonable facilities for satisfying himself that the fabrication is being undertaken in accordance with drawings and specifications. Technical approval of the steel structure in the shop by the Engineer-in-charge is mandatory. The contractor shall not limit the number and kinds of tests, final as well as intermediate once, or extra tests required by the Engineer-in-charge. The contractor shall furnish necessary tools, gauges, instruments etc. and technical non-technical personnel for shop tests by the Engineer-in-charge, free of cost.

b. **Shop Acceptance**

The Engineer-in-charge shall inspect and approve at the following stages:

The following approvals may given in shop:

- Intermediate approvals of work that cannot be inspected later.
- Partial approvals
- Final approvals

Intermediate approval of work shall be given when a part of the work is preformed later:

- Cannot be inspected later
- Inspection would be difficult to perform and results would not be satisfactory.

Partial approval in the shop is given on members and assemblies of steel structures before the primer coat is applied and includes:

- Approval of materials
- Approval of field joints
- Approval of parts with planed surfaces
- Test erection
- Approval of members
- Approval of markings

- Inspections and approvals of special features, like Rollers, loading platform mechanism etc.

During the partial approval, intermediate approvals as well as all former approvals, shall be taken in to consideration.

c. Final approval in the Shop

The final approval refers to all elements and assemblies of the steel structures, with shop primer coat, ready for delivery from shop to be loaded for transportation, or stored.

The final approval comprises of:

- Partial approvals
- Approval of shop primer coat
- Approval of mode of loading and transport
- Approval of storage (for materials stored)

3.10 Painting and Delivery

- (i) Preparation of parts for shop painting: Painting shall consist of providing at least one coat of red oxide zinc chromate primer to steel members before despatch from shop. Primer coat shall not be applied unless:
- Surface have been wire brushed, cleaned of dust, oil, rust or sand blasted as per the requirement and direction of Engineer-in-charge etc.
 - Erection gaps between members, spots that cannot be painted or where moisture or other aggressive agents may penetrate, have been filled with an approved type of oil and putty.
 - The surface to be painted is completely dry.
 - The parts where water of aggressive agents may collect (during transportation, storage, erection and operation) are filled with putty and provided with holes for drainage of water.
 - Members and parts have been inspected and accepted
 - Welds have been accepted.

The following are not to be painted or protected by any other product:

- Surface which are in the vicinity of joints to be welded at site.
- Surfaces bearing markings
- Other surfaces indicated in the design.

The following shall be given a coat of hot oil or any approved resistant lubricant only.

- Planed surfaces
- Holes for links

The surfaces that are to be embedded or in contact with the concrete shall be given a coat of cement wash. The surfaces which are in contact with the ground, gravel or brick work and subject to moisture shall be given bituminous coat. The other surfaces shall be given a primer coating.

Special attention shall be given to locations not easily accessible, where water can collect and which after assembly and erection cannot be inspected, painted and maintained. Holes shall be provided for water drainage and in accessible box type sections shall be hermetically sealed by welds.

If specified elsewhere, in the schedule of quantities, the contractor shall paint further coats of red-oxide after erection and placing in position of the steel structures.

(ii) Packing, transportation, delivery

After final shop acceptance and marking, the item shall be packed and loaded for transportation. Packing must be adequate to protect item against warping during loading and unloading. Proper lifting devices shall be used for loading, in order to protect items against warping. Slender projecting parts shall be braced with additional steel bars, before loading, for protection against warping during transportation. Loading and transportation shall be done in compliance with transportation rules. If certain parts cannot be transported in the lengths stipulated in the design, the position and type of additional splice joints shall be approved by the Engineer-in-charge. Items must be carefully loaded on platforms of transportation means to prevent warping, bending or falling during transportation. The small parts such as fish-plates, quests etc. shall be securely tied with wire to their respective parts. Bolts, nuts and washers shall be packed and transported in crates. The parts shall be delivered in the order stipulated by the Engineer-in-charge and shall be accompanied by document showing:

- Quality and quantity of structure or members
- Position of member in the structure
- Particulars of structure
- Identification number job symbol.

3.11 Field Erection

- a. The erection work shall be permitted only after the foundation or other structure over which the steel work will be erected is approved and is ready for erection.
- b. The contractor shall satisfy himself about the levels, alignment etc. for the foundations well in advance, before starting the erection. Minor chipping etc. shall be carried out by the contractor on his expense.
- c. Any faulty erection done by the contractor shall be made good at his own cost.
- d. Approval by the Engineer-in-charge or their representatives at any stage of work does not relieve the contractor of any of his required guarantees of the contract.
- e. Storage and preparation of parts prior to erection

The storage place for steel parts shall be prepared in advance and got approved by the Engineer-in-charge before the steel structures start arriving from the hop. A platform shall be provided by the Contractor near the erection site for preliminary erection work. The contractor shall make the following verifications upon receipt of material at site.

- For quality certificates regarding materials and workmanship according to these general specifications and drawings.
- Whether parts received are complete without defects due to transportation, loading and unloading and defects, if any, are well within the admissible limit.

For the above work sufficient space must be allotted in the storage area which will be arranged by the contractor without any extra cost to the Institute. Steps shall be taken to prevent warping of items during unloading. The parts shall be unloaded, stored and stored so as to be easily identified. The parts shall be stored according to construction symbol and markings so that these may be taken out in order or erection. The parts shall be at least 150 mm clear from ground on wooden or steel blocks for protection against direct contact with ground and to permit drainage of water. If rectification of members like straightening etc. are required, these shall be done in a special place allotted which shall be adequately equipped. The parts shall be clean when delivered for erection.

f. Erection & Tolerances

Erection in general shall be carried out as required and approved by the Engineer-in-charge. Positioning and levelling of the structure, alignment and plumbing of the stanchion and fixing every member of the structure shall be in accordance with the relevant drawings and to the complete satisfaction of the Engineer-in-charge.

The following checks and inspection shall be carried out before during and after erection.

- damage during transportation
- accuracy of alignment of structures
- erection according to drawings and specifications
- progress and workmanship.

In case there be any deviations regarding positions of foundations or anchor bolts, which would lead to erection deviations, the Engineer-in-charge shall be informed immediately. Minor rectifications in foundations, orientation of bolts holes etc. shall be carried out as part of the work, at no extra cost. The various parts of the steel structure shall be so erected so to ensure stability against inherent weight, wind and erection stresses. The structure shall be anchored and final erection joints completed after plan and elevation positions of the structural members have been verified with corresponding drawings and approved by the Engineer-in-charge. The bolted joints shall be tightened so that the entire surface of the bolt heads and nuts shall rest on the member. For parts with sloping surfaces tapered washers shall be used.

3.12 Final acceptance and handing over the work.

- (i) At acceptance, the contractor shall submit the following documents:
- Shop and erection drawings – four sets soft copy and hard copies
 - copies of each of the following:
 - Shop acceptance documents quality certificate for structurals, plates, etc. (electrodes, welding wire, bolts, nuts, washers etc.)
 - List of certified welders who worked on erection of structures.

- Acceptance and intermediate control procedure of erection operations.
- (ii) Approval by the Engineer-in-charge at any stage of work does not relieve the contractor of any of his required guarantees of the contract.

3.13 Method of Payments

Payment for steel work shall be made on basis of admissible weight of the structure accepted, the weight being determined as described below:

- a. The rate for supply, fabrication and erection, shall include cost of all handling and transportation to Owner's store/site of work where supply and fabrication only are involved, trimming, straightening, edge preparation, preparation and getting reviewed of fabrication drawings, and providing one or more coat of Red-oxide zinc chromate primer as specified in the schedule of quantity.
- b. In the case, Owner supplies materials the rate shall include cost of steel materials taking delivery of the materials, from owner's store all handling and rehandling, loading and unloading, transport to site or work, returning of surplus materials to owner's stores etc. complete as well as the cost of all handling and transport, scaffolding, temporary supports, tools and tackles, touching up primer coat, grouting etc.
- c. The actual lengths installed shall be measured and the weight of structural material/plate shall be calculated wherever necessary on the basis of IS handbook. If sections are different from IS section, then manufacturers handbook shall be adopted. No allowance in weights shall be made for rolling tolerance.
- d. Sections built out of plates, structural shall be paid on the actual weight incorporated except for gussets which will be paid on the weight of the smallest rectangle enclosing the shape. No deductions shall be made for skew cuts in rolled steel sections.
- e. Welds, bolts, nuts, washers, etc. shall not be measured. Rate for structural steel work shall be deemed to include the same.
- f. No other payment either for temporary works connected with this contract or for any other item such as welds, shims, pacing plates etc. shall be made. Such item shall be deemed to have been allowed for in the rate quoted for steel work.

3.14 Grouting of Pockets

- (i) Grouting of pockets and under base plates will be done only after the steel work has been levelled and plumbed and the bases of stanchions are supported by steel shims. The space below the base plate and pockets shall be thoroughly cleaned.
- (ii) The mortar used for grouting shall not be leaner than 1:2 (1 cement: 2 sand) (grade 300 in case of concrete) or as is specified and shall be mixed to the minimum consistency required. It shall be poured under suitable head and tamped until the space has been completely filled.

3.15 Tolerances allowed in the erection of building without cranes

The maximum tolerances for line and level of the steel work shall be + 3.00 mm on any part of the structure. The structure shall not be out of plumb more than 3.5 mm on each 10 M. section of height and not more than 7.0 mm per 30 M. section. These tolerances shall apply to all parts of the structure unless the drawings issued for erection purposes state otherwise.

- 3.16 Contractor to submit shop drawing for all structural steel work for approval. The work at site should commence only after getting the shop approved.
- 3.17 Contractor to get erection scheme approved before commencement of erection of trusses.

4 R.C.C. WORK (DESIGN MIX CONCRETE)

- 4.1 The RCC work shall be done with RMC of Design Mix Concrete, unless otherwise specified in the nomenclature of items, wherever letter 'M' has been indicated , the same shall imply for the Design Mix Concrete. The Ready Mix Concrete shall be as per IS : 4926 and as per CPWD Specification and guide lines. For the nominal mix in RCC, CPWD specification shall be followed. The Design Mix Concrete will be designed based on the principles given in IS : 456, 10262 and SP 23. The contractor shall carry out design mixes for each class of concrete indicating that the concrete ingredients and proportions will result in concrete mix meeting requirements specified. The cement shall be actually weighed, as presumption of each bag having 50 kg shall not be allowed. In case of use of admixture, the mix shall be designed with these ingredients as well. The specification mentioned herein below shall be followed for Design Mix Concrete.

INGREDIENTS

- a. Coarse Aggregate :- As per CPWD Specifications
 - b. Fine Aggregate :- As per CPWD Specifications.
 - c. Water :- As per requirements laid down in IS 456-2000 and CPWD specifications.
 - d. Cement: Cement arranged by the contractor will be OPC (in bags) conforming to IS: 8112.
- 4.2 Admixture:- Type of Admixture shall be got approved from Engineer-in-Charge. Admixtures of approved quality shall be mixed with concrete to achieve the desired workability within specified water cement ratio. The admixture shall conform to IS : 9103. The chloride content in the admixture shall satisfy the requirement of BS : 5075. The total amount of chlorides in the admixture mixed concrete shall also satisfy the requirements of IS : 456-2000
- 4.3 The contractor shall not be paid anything extra for admixture required for achieving desired workability without any change in specified water cement ratio for RCC / CC work.
- 4.4 Grade of concrete:- The characteristic compressive strength of various grades of concrete shall be given as below :-

Sl. No.	Grade / Designation	Compressive Strength on 15 cm cubes min 7 days (N/mm ²)	Specified characteristic compressive strength at 28 days (N/mm ²)	Minimum cement content * (Kg per cum)	Maximum water cement ratio
(i)	M-25	As per design	25	330	0.45
(ii)	M-30	As per design	30	350	0.45

- 4.5 The Concrete mix will be designed for minimum workability as specified in para 7 of IS-456-2000

4.6 WORKABILITY OF CONCRETE (UNLESS OTHERWISE SPECIFIED ELSEWHERE OR AS DECIDED BY ENGINEER IN CHARGE.

Placing Conditions	Degree of Workability	Slump (mm)
(1)	(2)	(3)
Lightly reinforced sections in slabs, beams walls, columns	Low	25-75
Heavily reinforced section in slabs, beams, walls, columns	Medium	50-100
Pumped concrete	Medium	75-100

- 4.7 The recommended values of slump for various members shall confirm to IS 456
- 4.8 In the designation of concrete mix letter M refers to the mix and the number to the specified characteristic compressive strength of 15 cm – Cube at 28 days expressed in N/mm². It is specifically highlighted that in addition to above requirement the maximum cement content of OPC for any grade shall not exceed 430 kg/cum.
- 4.9 The concrete design mix with or without admixture will be carried out by the contractor and got approved by IIT Delhi or NCBM Ballabgarh as per direction of Engineer-In-Charge, within 30 days from the date of issue of letter of acceptance. No concreting shall be done until the mix design is approved.
- 4.10 For such approval various ingredients for mix design as submitted by contractor shall be sent to the lab / test houses through the PMC/ Engineer-In-Charge of the project and got it tested in approved laboratories as may be decided by the Engineer-in-charge. Sample of aggregate sent shall be preserved at site by the Institute. For each different set of Coarse aggregates & Fine aggregates, fresh design shall be done and got approved by the Institute/PMC. The admixture if used by contractor shall be at his own cost without any extra payment.
- 4.11 The Cement content means PP Cement including fly ash added during the production of PPC at the cement plant/factory.
- 4.12 In case of change of source or characteristic properties of the ingredients used in the concrete mix during the work, a revised laboratory mix design report conducted in approved Lab. By Engineer-In-Charge shall be submitted by the contractor as per the direction of the Engineer in charge. In case of failure of batching plant and site conditions warrants for smooth progress of work, RMC of suitable design mix may be allowed with the written permission of Engineer-in-charge, and with no claim of extra cost from the contractor.
- 4.13 **Approval of Design Mix**
- a. The mix design for a specified grade of concrete shall be done for a target mean compressive strength $T_{ck} = F_{ck} + 1.65s$

Where F_{ck} = Characteristic Compressive Strength at 28 days

s = Standard deviation which depends on degree of quality control.

- b. The degree of quality control for this work is “good” for which the standard deviation(s) obtained for different grades of concrete shall be as per IS relevant IS Standards/Codes.
- c. Out of the six specimen of each set, three shall be tested at seven days and remaining three at 28 days. The preliminary tests at seven days are intended only to indicate the strength to be attained at 28 days.

4.14 Charges for Design Mix

All cost of mix designing and testing connected therewith including charges payable to the laboratory shall be borne by the contractor.

4.15 Design Mix Concrete from Fully Automatic Computerized Concrete Batching and Mixing Plant

a. Proportioning Concrete

In proportioning cement concrete, the quantity of both cement and aggregates shall be determined by weight. The cement shall be weighed separately from the aggregates. Water shall either be measured by volume in calibrated tanks or weighed. All measuring equipment shall be maintained in a clean and serviceable condition. The amount of mixing water shall be adjusted to compensate for moisture content in both coarse and fine aggregates. The moisture content of aggregates shall be determined in accordance with IS : 2386 (Part III). Suitable adjustments shall also be made in the weights of aggregates to allow for the variation in weight of aggregates due to variation in moisture content.

b. Production of Concrete

The concrete shall be RMC .produced in a central batching and mixing plant with, computerized printing for contents and admixture dosage. The batching plant shall be fully automatic. Automatic batcher shall be charged by devices which, when actuated by a Single starter switch will automatically start the weighing operation of each material and stop automatically, when the designated weight of each material has been reached. The batching plant shall have automatic arrangement for dispensing the admixture and shall also be capable of discharging water in more than one stage. A print out from the batching plant for every lot shall be submitted. A batching plant essentially shall consist of the following components: Separate storage bins for different sizes of aggregates, silo for cement; and water storage tank.

- (i) Batching equipment
- (ii) Mixers
- (iii) Control panels
- (iv) Mechanical material feeding and elevating arrangements
- (v) The Contractor shall arrange for inspection of automatic batching plant within seven days of issue of letter of award to facilitate inspection and approval of same by Engineer-In-Charge. Nothing extra will be paid for this.
- c. The compartments of storage bins for aggregates shall be approximately of equal size. The cement compartment shall be centrally located in the batching

plant. It shall be watertight and provided with necessary air vent, aeration fittings for proper flow of cement & emergency cement cut off gate. The aggregate and sand shall be charged by power operated centrally revolving chute. The entire plant from mixer floor upward shall be enclosed and insulated. The batch bins shall be constructed so as to pass by self-cleansing during drawdown. The batch bins shall in general conform to the requirements of IS :4925.

- d. The batching equipment shall be capable of determining and controlling the prescribed amounts of various constituent materials for concrete accurately i.e. water, cement, sand, individual size of coarse aggregates etc. The accuracy of the measuring devices shall fall within the following limits.

Measurement of Cement	±2% of the quantity of cement in each batch
Measurement of Water	±3% of the quantity of water in each batch
Measurement of Aggregate	±3% of the quantity of aggregate in each batch
Measurement of Admixture	±3% of the quantity of admixture in each batch

4.16 Mixing Concrete

The mixer in the batching plant shall be so arranged that mixing action in the mixers can be observed from the operator's station. The mixer shall be equipped with a mechanically or electrically operated timing, signaling and metering device which will indicate and assure completion of the required mixing period. The mixer shall have all other components as specified in IS:4925.

4.17 Transportation, Placing and Compaction of Concrete

- (i) Mixed concrete from the batching plant shall be transported to the point of placement by transit mixers or through concrete pumps or steel closed bottom buckets capable of carrying 6 cum concrete. In case the concrete is proposed to be transported by transit mixer, the mixer speed shall not be less than 4 rev/ min. of the drum nor greater than a speed resulting in a peripheral velocity of the drum as 70 m / minute at its largest diameter. The agitating speed of the agitator shall be not less than 2 rev / min. nor more than 6 rev / min. of the drum. The number of revolutions of the mixing drum or blades at mixing speed shall be between 70 to 100 revolutions for a uniform mix, after all ingredients, have been charged into the drum. Unless tempering water is added, all rotation after 100 revolutions shall be at agitating speed of 2 to 6 rev / min. and the number of such rotations shall not exceed 250. The general construction of transit mixer and other requirements shall conform to IS : 5892.
- (ii) In case concrete is to be transported by pumping, the conduit shall be primed by pumping a batch of mortar / thick cement slurry through the line to lubricate it. Once the pumping is started, it shall not be interrupted (if at all possible) as concrete standing idle in the line is liable to cause a

plug. The operator shall ensure that some concrete is always there in the pump-receiving hopper during operation. The lines shall always be maintained clean and shall be free of dents.

- (iii) Materials for pumped concrete shall be batched consistently and uniformly. Maximum size of aggregate shall not exceed one-third of the internal diameter of the pipe. Grading of aggregate shall be continuous and shall have sufficient ultra fine materials (materials finer than 0.25mm). Proportion of fine aggregates passing through 0.25mm shall be between 15 & 30% and that passing through 0.125 mm sieve shall not be less than 5% of the total volume of aggregate. When pumping long distances and through hot weather, setretarding admixtures may be used. Admixtures to improve workability can be added. Suitability of concrete shall be through pumping shall be verified by trial mixes and by performing pumping tests.

4.18 Preparation of Mixes as per approved Design Mix and Conducting Confirmatory Test at Field Lab

- a. The contractor shall make the cubes of trial mixes as per approved Mix design at site laboratory for all grades, in presence of PMC/Engineer in charge using sample of approved materials proposed to be used in the work prior to commencement of concreting and get them tested in his presence to his entire satisfaction for 7 days and 28 days. Test cubes shall be taken from trial mixes as follows.

For each mix, a set of six cubes shall be made from each of the three consecutive batches. Three cubes from each set of six shall be tested at age of 7 days and remaining three cubes at age of 28 days. The cubes shall be made, cured, transported and tested strictly in accordance with specifications. The average strength of nine cubes at age of 28 days shall exceed the specified target mean strength for which design mix has been approved , the evaluation of test results will be done as per IS : 456-2000.

4.19 Work Strength Test TEST SPECIMEN

Work strength test shall be conducted in accordance with IS: 516 on random sampling. Each test shall be conducted on six specimen, three of which shall be tested at 7 days and remaining three at 28 days. Additional samples shall be prepared, if required, as per direction of Engineer in charge for testing samples cured by accelerated method as described in IS : 9103.

TEST RESULTS OF SAMPLE

The test results of the sample shall be the average of the strength of three specimen. The individual variation shall not be more than + - 15 percent of the average. If more, the test results of the sample are invalid. 90% of the total tests shall be done at the laboratory established at site by the contractor and remaining 10% in the external laboratory.

4.20 Standard for Acceptance

- a. Standard of acceptance shall be same as specified in clause 16 of IS 456-2000.
- b. In order to keep the floor finish as per direction of Engineer-in-charge and as per Architectural drawings and to provide required thickness of the flooring as per specification, the level of top surface of RCC shall be accordingly adjusted at the time of its centering, shuttering and casting for which nothing extra shall be paid to the contractor.

4.21 Ultrasonic Pulse Velocity Method of Test for RCC

- a. The underlying principle of assessing the quality of concrete is that comparatively higher velocities are obtained when the quality of concrete in terms of density, homogeneity and uniformity is good. The consistency of the concrete as regards its general quality gets established. In case of poorer quality lower velocities are obtained. If there are cracks, voids or flaws inside the concrete which come in the way of transmission of pulse, lower velocities are obtained.
- b. The quality of concrete in terms of uniformity, incidence or absence of internal flaws, cracks and segregation etc. indicative of the level of workmanship employed, can thus be assessed using the guidance given in table below, which have been evolved for characterizing the quality concrete in structure in term of the ultrasonic pulse velocity.

Velocity criterion for Concrete Quality Grading

S. No.	Pulse velocity by Cross Probing (km/sec)	Concrete Quality Grading
1.	Above 4.5	Excellent
2.	4.5 to 3.5	Good
3.	3.5 to 3.0	Medium
4.	Below 3.0	Doubtful

Note : In Case of “doubtful” quality it may be necessary to carry further tests.

- c. Pulse velocity method of test of concrete is to be conducted for CPWD works as a routine test. The acceptance criteria as per the above table will be applicable which is as per IS 13311 (part-1): 1992. From the above “Good” and “Excellent” grading are acceptable and below these grading the concrete will not be acceptable.
- d. 5% of the total number of RCC members in each category i.e. beam, column, slab and footing may be tested by UPV test method for establishing quality of concrete. It is suggested that test be conducted on RCC beam near joint with column, on RCC column near joint with beam, on RCC footings and rafts. On RCC rafts a suitable grid can be worked out for determining number of tests. In addition doubtful areas such as honeycombed locations, locations, where continuous seepage is observed, construction joints and visible loose pockets will also be tested.

- e. The test results are to be examined in view of the above acceptance criteria “Good” and “Excellent” and wherever concrete is found with less than required quality as per acceptance criteria, repairs to concrete will be made. Honeycombed areas and loose pockets will be repaired by grouting using Portland Cement Mortar/Polymer Modified Cement Mortar /Epoxy Mortar, etc. after chipping loose concrete in appropriate manner. In areas where concrete is found below acceptance criteria and defects are not apparently visible on surface ,injecting approved grout in appropriate proportion using epoxy grout /acrylic Polymer modified cements slurry made with shrinkage compensating cement / plain cement slurry etc will be resorted to for repairs.(refer relevant chapters from CPWD Hand Book on Repairs and Rehabilitation of RCC Buildings).Repair to concrete will be done till satisfactory results are obtained as per the acceptance criteria by retesting of the repaired area. If satisfactory results are not obtained dismantling and relaying of concrete will be done.

4.22 Measurement

As per CPWD specifications.

4.23 Tolerances

As per CPWD specifications

4.24 Rate

- a. The rate includes the cost of materials and labour involved in all the operations described above except for the cost of centering, shuttering and reinforcement, which will be paid separately.
- b. In case of actual average compressive , strength being less than specified strength which shall be governed by para ‘ Standard of Acceptance’ as above the rate payable shall be worked out accordingly on the basis of analysis.
- c. In case of rejection of concrete on account of unacceptable compressive strength, governed by para ‘Standard of Acceptance’ as above, the work for which samples have failed shall be redone at the cost of contractors. However, the Engineer in charge may =order for additional tests (like cutting cores, ultrasonic pulse velocity test, load test on structure or part of structure etc) to be carried out at the cost of contractor to ascertain if the portion of structure wherein concrete represented by the sample has been used, can be retained on the basis of results of individual or combination of these tests. The contractor shall take remedial measures necessary to retain the structure as approved by the Engineer in charge without any extra cost. However, for payment, the basis of rate payable to contractor shall be governed by the 28 days cube test results and reduced rates shall be regulated in accordance with para 5.4.13 of Revised CPWD specification 2009, Vol.-I.
- d. As per general engineering practice, level of floors in toilet / bath, balconies, shall be kept 12 to 20mm or as required, lower than general floors shuttering

should be adjusted accordingly. The landing level of mumti / Staircase cabin shall be Kept one riser level higher than adjoining slab level so as to accommodate water proofing treatment over terrace slab. In case of kitchen slab the portion of floor trap below kitchen platform be kept at lower level as per drawings. Nothing extra is payable on this account.

- e. For the execution of centering and shuttering, the contractor shall use propriety "Reebole" chemical mould release agent of FOSROC or equivalent as shuttering oil as approved by Engineer-in-charge and nothing extra shall be paid on this account.

4.25 Cover / Spacer Block

The contractor shall provide approved type of support for maintaining the bars in position and ensuring required spacing and correct cover of concrete to reinforcement as called for in the drawings, spacer blocks of required shape and size. Chairs and spacer bars shall be used in order to ensure accurate positioning of reinforcement. Spacer blocks shall be cast well in advance with approved proprietary pre-packed free flowing mortars (Conbextra as manufactured by M/S Fosroc Chemicals India Ltd. Or equivalent as approved by the Engineer-in-charge at his discretion) of high early strength and same colour as surrounding concrete, Pre-cast cement mortar/concrete blocks/blocks of polymer shall not be used as spacer blocks unless specially approved by the Engineer-in-charge, rate of RCC items is inclusive of cost of such cover blocks.

4.26 Construction Joints

Construction joints in PCC, RCC and Light Weight Concrete works etc., shall be provided only at places as per approved structural drawings. It shall not in any manner structurally or functionally affect the structure. If, any additional construction joint is required to be provided, it shall be done with approval of the Engineer-in-Charge. The centring, shuttering, strutting etc., required for the construction joint in PCC, RCC and Light Weight Concrete works shall be provided as per the CPWD Specifications. Nothing extra shall be payable on this account.

4.27 Treatment to the Construction Joints and Rectification of Defects

All care shall be taken to minimize the number of construction joints in the basement raft and walls as well as in the leveling course of PCC at base. Still, wherever the construction joints are provided, these shall be slightly opened up and then suitably filled with cement mortar 1:3 (1 cement: 3 fine sand) after applying a bond coat of cement slurry. The aluminium nipples shall be fixed in the cavity and crevices, if required. Then cement slurry of w/c ratio 0.5 shall be pressure grouted through these nipples as required, which shall then be suitably cut. Nothing extra shall be payable on this account.

All care shall be taken to avoid any honey combed concrete or any cavity. Still, if any honey combed concrete or cavity in RCC wall is encountered the same shall be rectified by removing all loose concrete by chiseling. The chipped concrete surface shall be cleaned and made dust free by blowing compressed air and then washed clean with water (but without excess water). Then a bond coat of polymer modified cement slurry @ 2.2 kg of cement per sq. m. of concrete surface, in two coats, shall be

applied as specified. The second coat shall be applied immediately within 15-20 minutes of application of the first coat. A coat of polymer modified cement plaster of mix 1:3 (1 cement: 3 fine sand) of the required thickness shall be applied as specified to fill the cavity if the required thickness is less than 20 mm. If the required thickness is more than 20 mm. the cavity shall be filled by concrete of relevant grade after providing the required centering and shuttering. The surface shall then be moist cured for minimum 7 days. Nothing extra shall be payable on this account.

4.28 MISCELANEOUS

Mixer having arrangement of weighing water for controlling W.C. ratio should only be used in all PCC and RCC works where there is no provision for Ready Mix Concrete.

Only factory made round type concrete cover blocks of same mix shall be used. No other type of cover blocks shall be permitted.

Any cement slurry if added over base surface (or for continuation of concreting) for bond, its cost shall be deemed to have been included in the respective items, unless otherwise, explicitly stated and nothing extra shall be payable nor extra cement considered in the cement consumption on this account.

Centering and shuttering for all concrete and reinforced concrete wherever required shall be in steel and / or plywood to produce a smooth and uniform finish on all exposed surfaces. However, all props, bracings, scaffolding etc., shall be in steel. The entire responsibility of planning, design, erection and safety of formwork shall lie with the Contractor.

Extra for shuttering in curved profile

It is clarified that only the portion of shuttering in elevation and not segmental exceeding 6m radius in plan shall be measured for payment under this item. The shuttering curved in plan shall not be measured separately for payment and its rate is deemed to be included in the cost of respective item for payment and mode of measurement shall be as per the CPWD specifications. For shuttering curved in elevation the steel / ply shuttering shall be fabricated to achieve the curved profile as per the architectural drawings.

The contractor shall arrange and provide at the site of work all the equipments for field testing as required like balances, sieves, slump cone , dial gauges, compression testing machines(still the samples shall be tested in an independent laboratory as approved by the Engineer-in- Charge), graduated measuring cylinders, steel tapes, vernier calipers, micrometer screw gauges, plumb bobs, spirit levels , Schmidt rebound hammer, total station survey equipment, magnifying glass, screw drivers, plastic bags for samples, etc. Allowing establishing the site laboratory by the contractor shall not absolve the contractor from fulfilling the criteria of getting the tests done in an independent laboratory. The decision of the Engineer-in-Charge of allowing any test in the site laboratory or any other laboratory shall be final and binding on the contractor and no claim of any kind whatsoever shall be entertained from the contractor on this account.

Even if the certain items of work are carried out by the specialized contractors, the responsibility for the work shall however rest with the contractor only. Unless otherwise specified for the item, the maximum water cement ratio for any grade of concrete shall not be more than 0.5. The contractor shall within 15 days of issue of letter for commencement of the work, submit the mix design for various grades of concrete along with 7 days crushing strength reports and within 40 days submit 28 days crushing strength reports, for the samples for the mix. Nothing extra shall be payable on account of admixing any chemical admixture for achieving any characteristic for the concrete. Concreting shall be commenced only after the approval of the mix design by the Engineer-in-Charge.

Wherever required the M.S. inserts shall be provided during the casting of RCC / PCC. The payment of providing and fixing inserts shall be made separately. However, contractor shall have to bear all the incidental costs and expenses on this account.

As far as possible the contractor shall plan that the concreting is carried out during day shift.

4.29 Expansion joint: General

Seismic/separation joints shall be provided where shown on the drawings. They shall be constructed with in gap between the adjoining parts of the works of the width specified in the drawings.

The contractor shall ensure that no debris is allowed to enter and be lodged in seismic and separation joints.

Seismic or separation joints shall be provided with approved 50mm thickness of compressible filler board, backer rod and polysulphide sealant compound etc., Boards to be used in expansion joint shall be best approved quality and shall be got approved before use. It shall have minimum density of 95 kg/cum, Non staining with less than 1% water absorption and compression recovery of 93% minimum as per the specifications.

4.30 Method of Application

50mm thick expansion board having sufficient width directed by Engineer-in-charge shall be provided in expansion joint before filling and finishing the expansion joint with sealant. The expansion joint shall be cleaned and made dry completely. All loose materials shall also be removed. The joints gap shall be made uniform in width and depth after cleaning the joints. The backup materials of best quality shall be provided in position in order to produce thoroughly together in required proportion as prescribed by manufacture specification, so that a uniform mixture obtained. The mixed solution shall be applied to two sides of the joint that it covers the sides complete.

Disturbed edges of RCC members near expansion joints shall be finished with rich mortar without any extra work includes providing required width of expansion board in the joints and measurement of expansion board only shall be taken.

The rate shall be for a unit of one square meter of the joint finished with board.

4.31 Sampling Criteria

Following test carried out at every 100 sqmt.

- (i) Density.
- (ii) Water absorption.
- (iii) Compression recovery.

4.32 Mode of measurement:

The rate shall be for a unit of one square meter

The area where overlap is supposed to be required will not be paid for separately.

4.33 Rate

The rate shall be include the cost of all the materials and labour involved in all the operations described above expect otherwise stated.

5 BRICKWORK / AAC BLOCKWORK, FLOORING & WALL LINING / VENEER WORKS

5.1.1 BRICK WORK:-

The classification of bricks brought by the contractor shall strictly confirm with CPWD Specifications – 2009 Vol-1 & II with upto date correction slips or as specified. The rate shall also include for leaving chases / notches for dowels / cramps for all kinds of cladding to come over brick work.

The walls shall be made with **machine moulded perforated modular brick masonry**

5.1.2 WORKING CHARACTERISTICS:

- Masonry structures can be designed conforming to BIS:1905.

STRENGTH & STABILITY:

Unless otherwise specified the design and construction of cellular concrete masonry walls shall conform generally to the requirements of BIS: 1905-1980.

5.1.3 MANUFACTURERS

Acceptable Manufacturer: As per approved list of makes.

1. Requests for substitutions will be considered only in case of non availability of material.

5.1.4 The Flooring work, wall lining work and stone cladding work in general including testing etc. shall be carried out as per CPWD specifications.

6.0 General Specifications and Conditions

1. The work in general shall be executed as per the description of the item, attached specifications, CPWD Specifications 2009 Vol.-I & II with upto- date correction slips.
2. In case of any variation between between the Schedule of Quantities, the specifications and/or the drawings; the following order of precedence be followed:
 - (i) Nomenclature of item in Schedule of quantities
 - (ii) Particular specification attached with the tender documents.
 - (iii) General specification attached with the tender documents.
 - (iv) Drawings
 - (v) CPWD specifications 2009 Vol.-I & II with upto- date correction slips.
 - (vi) MORTH specifications for Road & Bridge work (Fourth revision) with correction slips issued upto the last date of issue of tender.
 - (vii) IRC specifications/ Codes
 - (viii) Relevant specification of BIS
 - (ix) Standard acceptable practice as approved by Engineer-in-charge.
3. The contractor shall be required to produce samples of all materials sufficiently in advance to obtain approval of the Engineer-in-Charge. Subsequently the materials to be used in the actual execution of the work shall strictly conform to the approved samples and shall be preserved till the completion of the work. In case of variation, such materials shall be liable to rejection.
4. All materials shall be got checked from the Engineer-in-charge of work, on receipt of the same at site and before use at site.
5. The contractor shall be required to provide testing lab at site with necessary appliances. The Engineer-in-charge reserves right to conduct field tests to ensure that the quality is consistent with the prescribed specifications. If the material of end product is found defective or sub standard it will have to be replaced / rectified at the risk and cost of contractor.
6. The contractor shall at his own cost, make all arrangements and shall provide such facilities as the Engineer-in-charge may require for collecting, preparing and forwarding the required number of samples for tests and for analysis at such time and to such places as directed by the Engineer-in-charge. Nothing extra shall be paid for the above including the cost of material to be tested.
7. 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 associates himself, the result of such tests and consequences thereon shall be binding on the contractor.
8. Wherever any reference to any Indian Standard specifications / IRC codes/ MORTH specifications occur in the documents relating to this contract, same shall be inclusive of all amendments issued thereto or revision thereof if any, till the date of the tender

notice. The contractor shall keep at his own cost all such publications of relevant Indian Standards applicable to the work at site.

9. The contractor must take adequate precaution to ensure that no spillage of construction material takes place on the site and on the carriageway leading to the site. Whenever it is found that the carriage way has been blocked, due to contractor's fault the Engineer-in-charge would get it cleared at the risk and cost of contractor, without giving any notice, for smooth running of traffic. The decision of Engineer-in-charge in this regard shall be final and binding on the contractor.
10. The necessary tests shall be conducted in the laboratory of M.D. University, Rohtak, IIT Delhi, NIT Kurukshtra, CRRI Delhi, Shri Ram Test House Delhi or any other laboratory approved by the Engineer-in-charge.
11. The contractor shall get the water tested with regard to its suitability for use on the work and get approval from the Engineer-in-charge before proceeding with the use of same for execution of works.
12. The contractor shall have to make his own, arrangement for housing for staff and labour at/away from construction site The decision about how many huts can be allowed for labour/construction workers at project site shall rest with the Engineer-in-charge and shall be binding on the contractor.

6.1 Special Conditions

1. All setting out activities concerning establishment of bench marks, theodolite stations, centre line pillars, etc. including all materials, tools, plants, equipments, theodolite and all other instruments, labour etc. required for performing all the functions necessary and ancillary thereto at the commencement of the work, during the progress of the work and till the completion of the work shall be carried out by the contractor.
2. The contractor shall carry out true and proper setting out of the work under the supervision of the Engineer-in-Charge or his authorized representatives and shall be responsible for the correctness of the positions, levels, dimensions and alignments of all parts of the Road. If at any time, during the progress of the work, any error appears or arises in the position, level, dimensions or alignment of any part of the work, the contractor on being asked to do so by the Engineer-in-charge, shall rectify such error to the entire satisfaction of the Engineer-in-Charge. The supervision and/or checking by the Engineer-in-charge or his authorized representatives shall not relieve the contractor of his responsibility for the correctness of any setting out of any line or level. The contractor shall carefully protect and preserve all bench marks, pegs and pillars provided for the setting out of works.
3. Some restrictions may be imposed by the concerned authorities on quarrying of sand, stone etc. from certain areas. For timely completion of work, the contractor shall have to bring such material from other quarries located elsewhere, and nothing extra shall be payable on this account.
4. Unless otherwise specified in the Schedule of Quantities, the rates of all items of work shall be considered as inclusive of working in or under water and/or liquid mud and/or foul conditions including pumping or bailing out liquid mud or water accumulated in excavations during the progress of the work from springs, tidal or river seepage, rain, broken water mains or drains and seepage from subsoil aquifer.
5. Stacking of materials and excavated earth including its disposal shall be done as per the directions of the Engineer-in-Charge. Multiple handling of materials or excavated earth, if required, shall have to be done by the contractor at his own cost.
6. Contractor shall supply, free of charge, all the materials required for testing. The testing charges shall be borne by the contractor.

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 himself, the Engineer-in-Charge shall do the needful or getting the samples collected and tested; the result of such tests and consequences thereof shall be binding on the contractor.
7. Other agencies working at site may also simultaneously execute the works entrusted to them and to facilitate their working, the contractor shall make necessary provisions e.g. holes, openings, etc. for laying / burying pipes, cables, conduits, clamps, hooks etc. as may be required from time to time.
 8. Existing drains, pipes, cables, overhead wires, sewer lines, water line and similar services encountered in the course of the execution of the work shall be protected against the damage by the contractor. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
 9. On account of security consideration, there could be some restrictions on the working hours, movement of vehicles for transportation of materials and location of labour camp. The contractor shall be bound to follow all such restrictions and adjust the programme for execution of work accordingly.
 10. For the safety of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractors shall, in addition the provision of CPWD safety code and directions of the Engineer-in-charge, make all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below & nothing extra shall be paid on this account.

IS 3696 Part I	Safety Code for Scaffolds and ladders
IS 3696 Part II	Safety Code for Scaffolds and ladders Part II ladders
IS 3764	Safety Code for excavation work
IS 4138	Safety Code for working in compressed air
IS 7293	Safety Code for working with construction machinery
IS 7969	Safety Code for storage and handling of building materials
IS 4130	Safety Code for demolition of buildings
 11. Nothing extra shall be paid for cartage of any material to the site of work.
 12. The contractor must take adequate precaution to ensure that no spillage of construction material takes place on to the carriageway. Failure to observe this will make the contractor liable to pay compensation @ Rs. 100/- (Rs. One Hundred only) per day per metre length of each carriage way as affected by spill over of any construction material subject to a maximum of 5% (five percent) of tendered cost of the work put to tender. The decision of Engineer-in-charge on this regard shall be final and binding on the contractor.
 13. The right to carry out the work either in conformity with or in a manner entirely different from the terms of this tender document that may be considered most suitable before or subsequent to the receipt of tenders due to exigencies of work, is reserved with the Engineer-in-charge.

14. For the execution of any items of work where any incidental work is actually required but not specifically stated in the tender, it is to be understood that the rate quoted by the contractor shall cover such charges also and nothing extra on account of such incidental charges, if any, shall be paid.
15. The contractor shall maintain in good condition all work till the completion of entire work allotted to him. From the commencement of the work to the completion of the same, the work is to be under the contractor's charge. The contractor is to be held responsible for and to make good all injuries, damages and repairs, caused by fire, traffic, floods or other natural calamities and no payment shall be made to the contractor on this account. Engineer-in-charge shall not be held responsible for any claims for injuries to persons/workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the contractor or any other of his authorized representatives in his employment during the execution of the work. The compensation, if any, shall be paid directly to the department / authority / persons concerned, by the contractor at his own cost.
16. Engineer-in-charge shall have full powers to send workmen and employ on the premises to execute fittings and other work not included in the contract. For whole operations the contractor is to afford every reasonable facility during ordinary working hours provided such operations are carried out in such a manner as not to impede the progress of work included in this contract, in the opinion of Engineer-in-charge.

6.2 Additional Conditions

1. Before tendering, the tenderer shall inspect the site of work and shall fully acquaint himself about the conditions with regard to site, nature of soil, availability of materials suitable location for construction of godowns, stores and labour huts, the extent of leads and lifts involved in the work (over the entire duration of contract) including location conditions, traffic restrictions, obstructions and other conditions, as required for satisfactory execution of the work. His rates shall take into consideration all such factors and contingencies. No claim whatsoever shall be entertained by the Institute on this account.
2. The contractor must study the specifications & conditions carefully before tendering.
3. Before start of the work, the contractor shall submit the program of execution of work, which will include sequence of construction, get it approved from the Engineer-in-charge and strictly adhere the same for the timely completion of the project work.
4. The contractor shall have to make approaches to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Engineer-in-Charge. Nothing extra shall be paid on this account.
5. The contractor shall at all times carry out work in a manner creating minimum interference in the flow of traffic as per direction of Engineer-in-charge.
6. The work shall be carried out in such a manner so as not to interfere or effect or disturb other works, being executed by other agencies, if any.
7. Any damages done by the contractor to any existing work shall be made good by him at his own cost.
8. The work shall be carried out in the manner complying in all respects with the requirement of relevant bye-laws of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.
9. For completing the work in time, the contractor might be required to work, in two or more shifts including night shifts and no claim whatsoever shall be entertained on this account, notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and / or extra account for any other reason. No bitumen work should be undertaken between 8 PM to 8 AM. Necessary permission to work in delay time, shall be obtained by the agency from traffic police and other concerned Departments. Institute shall provide necessary assistance in this regard, on a best-effort basis.
10. The contractor shall make his own arrangements for obtaining electric connection(s), if required, and make necessary payment directly to the department concerned. The

Institute shall however make all reasonable recommendations to the authority concerned in this regard.

11. The contractor or his authorized representative shall always be available at the site of work to take instructions from Engineer-in-charge or his representative, and ensure proper execution of work. No work shall be done in the absence of such authorized representative.
12. The contractor shall maintain in good condition all works executed till the completion of entire work allotted.
13. No payment shall be made to the contractor for damage caused by rains, or other natural calamities during the execution of works and no claims whatsoever on this account will be entertained.
14. The temporary warning lamps shall be installed at all barricades during the hours of darkness and kept lit at all times during these hours.
15. The malba / garbage, removed from the site shall be disposed off by the contractor at any approved Municipal dumping ground or directed by the Engineer-in-charge.
16. All work and materials brought and left upon the ground by the contractor or by his orders for the purpose of forming part of the works are to be considered to be the property of the Institute and the same are not to be removed or taken away by the contractor or any other person without approval of the Engineer-in-charge, but the Institute is not to be, in any way, responsible for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or damaged by weather or otherwise.
17. The contractor shall be responsible to provide deep hand pump/tube well at site of work to make available potable and safe drinking water to labour engaged in execution of work at his own cost.
18. The rates for all items of work, unless clearly specified otherwise, shall be deemed to include the cost of all labour, materials, dewatering and other inputs involved in the execution of the items.
19. Unless otherwise specified in the schedule of quantities the rates tendered by the contractor shall be inclusive and shall be applicable for all heights, depths, leads and lifts involved and the execution of work in or under water and or liquid mud including making diversion channels if necessary.
20. The contractor shall construct suitable godown at the site of work for storing the materials safely from damage due to sun, rain, dampness, fire, thefts etc. He shall also employ necessary watch and ward establishment for the purpose and no extra claim whatsoever shall be entertained on this account.
21. The contractor will not have any claim in case of any delay by the Engineer-in-charge in removal of trees or shifting, removing of telegraph, telephone or electric lines

(overhead or underground), water and sewer lines and other structure etc. if any, which may come in the way of the work. However, suitable extension of time can be granted to cover such delays.

22. Contractor may be required to execute this work under foul position. The decision of the Engineer-in-charge whether the position is foul or not shall be final and the binding on the contractor and nothing extra for executing the work in foul position is payable, beyond what is providing in the schedule of quantities.
23. In the tender documents, the word "CPWD" shall mean IIM Rohtak wherever applicable.
24. The rates for all the items of the work unless otherwise specified shall include cost of all labour, materials, dewatering and removal of silt, mud, vegetation etc. and other inputs required for the execution of the work. Only the material stated in the schedule of quantities and in Schedule "B" shall be issued by the department. In case any material supplied free of cost by the department is lost / damaged after issue while in transit or from the custody of the contractor, recovery shall be made at the current replacement of cost of the material plus ten percent.
25. No claim for the idle labour, machinery and establishment on account of suspensions / stoppage of work for any reason whatsoever shall be admissible under any circumstances as well as after completion.
26. The work shall be executed and measured as per metric dimensions given in the schedule of quantities.
27. Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost.
28. The contractor shall deploy the technical personnel on various items of work to be executed under this agreement as per clause 36(i) Schedule 'F'. No work shall be permitted without availability of the above mentioned technical personnel on respective items of work. The contractor shall intimate to Engineer-in-charge 24 hours in advance, in writing, the particulars of the technical personnel to be deployed on the various items of work. The cost of deployment of the above personnel shall be deemed to be included in the rates quoted by the contractor and nothing extra shall be payable on account of this.
29. Contractor shall within two weeks of award of work, submit to the Engineer-in-charge for his approval, list of measures for maintaining safety of manpower deployed for construction and avoidance of accidents.

6.3 PARTICULAR SPECIFICATIONS

1.0 GENERAL

- 1.1 The work, in general shall be executed as per the description of item, approved design and drawings, particular specifications & special conditions attached. MORTH specifications for road and bridge works (Fourth revision) 2001. CPWD specifications 2009 Vol.-I & II with correction slips upto the date of the opening of Tender and relevant specifications of B.I.S. with correction slips issued upto the last date of issue of tender. Where the aforesaid provisions and conditions are silent, relevant specialized literature and manufacturers' specifications shall be followed for the execution of work.
- 1.2 In case of discrepancy between the Schedule of Quantities, the specifications and/or the drawings; the following order of precedence will be followed:
- (i) Description of items in Schedule of Quantities
 - (ii) Particular specifications attached with tender documents
 - (iii) General specifications attached with tender documents
 - (iv) Drawings.
 - (v) CPWD specifications 2009 Vol.-I & II with upto date correction slips.
 - (vi) MORTH specifications for Road & Bridge work (Fourth revision) with correction slips issued upto the last date of issue of tender.
 - (vii) IRC specification / Codes.
 - (viii) Relevant Specifications of B.I.S.
 - (ix) Standard acceptable practice as approved by Engineer-in-charge
- 1.3 The contractor shall, at his own cost, construction, equip and establish a testing laboratory at site with necessary apparatus, instrument and equipment such as weighing scale, graduated cylinder, standard sieves, thermometer. Slump Cones etc. and engage the experienced technical staff for conducting day to day tests and to ensure that material conforming to prescribed standard only are used in the work. The Engineer-in-charge reserves right to conduct field tests to ensure that the quality is consistent with the prescribed specifications. If any material of end product is found defective or substandard, the same will have to be replaced / redone at the cost of contractor.
- 1.4 The work shall be executed mechanically unless otherwise directed by Engineer-in-charge. Following major machinery is to be arranged by the contractor:
- (a) J.C.B., pock lain and dumpers for excavation and disposal of excavated earth and road materials.
 - (b) Concrete Pump for placing the concrete.
- 1.5 All dismantled/excavated serviceable material shall be the property of Govt. which shall have to be handed over to the Engineer-in-charge by the contractor and proper account shall be maintained.
- 1.6 Material such as cement, fine sand, aggregates, bricks for execution shall be as per CPWD specification relevant agreement items.

7.0 TESTING AND COMMISSIONING

1 GENERAL

The Contractor shall be responsible for testing and commissioning the entire services installation described in these specifications and will demonstrate the operation of the system of the entire Satisfaction of the Architect/Consultant and to the Owner approval.

METHOD OF TESTING

The test on various services shall be carried out as described herein as described in relevant Indian Standards and British Standards and also as directed by the Engineer-in-Charge The carrying out and recording of tests shall be agreed with the Architect/Consultant.

- **WATER FOR TESTING**

Water for testing shall be obtained by the Contractor from an approved source. It shall be free from bacterial contamination silt, grit, sand etc. After testing, the Contractor shall satisfactorily dispose off all water, or it may be re used providing it is clean and is not contaminated.

- **TEST RECORDS**

The Contractor shall be responsible for the keeping all records of tests and on completion shall provide records and reports of the tests. All test records shall clearly identify the item of the test and must be signed by the Contractor's authorised representative and Engineer-in-Charge.

- **UNSATISFACTORY WORKS**

If the tests reveal unsatisfactory materials, installation or adjustment, the Contractor shall, at his own expense, carry out such alternations or replacements as may be necessary to rectify the defective work. The Contractor shall then repeat the tests as necessary to establish the satisfactory nature of the alterations or replacements.

- **TESTING AT WORKS**

All plants and equipments shall be tested at manufacturer's works before despatch and the test certificate in duplicate shall be forward to Architect/Consultant.

The Contractor shall similarly provide a set of manufacturer's certified test curves for any pump installed under the Contract. All tests shall be in accordance with the appropriate Indian Standards and British Standards as applicable.

- **ON SITE TESTING**

The Contractor shall provide on site all the necessary instruments, plant, equipment, materials, water, electricity and labour necessary for carrying out the specified tests. All tests shall be carried out as required to meet the construction programme and the Contractor shall include for all necessary isolation and other works as may be required for testing the whole or parts of the installation. The Contractor shall also be responsible for re-testing, if necessary, until satisfactory tests are achieved.

8.0 LIST OF APPROVED MAKE OF MATERIALS (FOR CIVIL WORKS)

S. No.	Materials	Vendors
1	Brick work	Perforated machine modular brick work
2	Cement (OPC/PCC)	ACC, Ultratech, JK, Ambuja, Birla
3	Concrete admixture, Plasticizer, Super Plasticizer, Admixtures, Other construction chemicals	BASF, Sika, FOSROC, CICO, Pidilite
4	Reinforcement steel	SAIL, TATA (TISCO), RINL, JSW, VIZAG
5	Structural Steel	SAIL, TATA (TISCO), RINL, Jindal, Apollo
6	MS pipe, Tubes, Bar, Flats, Angle, Tee Sections	SAIL, TATA (TISCO), RINL, Jindal, Apollo

NIT NO. IIMR/CIVIL/OTE/2022-23/P-101 T dated 07.02.2023

Estimate of Raising Height and Reconstruction of damaged portion of outer boundary wall at IIM Rohtak, Sunaria, Rohtak

S. No.	DSR no.	Description	Qty	Unit	Rate (in Rs.)	Amount (in Rs.)
		<u>1.0 EARTH WORK</u>				
1.1	2.6.1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed.				
1.2		All kinds of soil.	500	cum		
1.3	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	200	cum		
1.4	2.32	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.	2000	sqm		
		<u>2.0 CONCRETE WORK</u>				
2.1		Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering:				
2.2	4.1.3	1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	25	cum		
2.3	4.1.8	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size).	15	cum		
		<u>3.0 REINFORCED CEMENT CONCRETE</u>				
3.1	5.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :				

3.2	5.2.2	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	145	cum		
3.3	5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	128	cum		
		4.0 FORM WORK(SHUTTERING)				
4.1	5.9	Centering and shuttering including strutting, propping etc. and removal of form for :				
4.2	5.9.5	Lintels, beams, plinth beams, girders, bressumers, cantilevers, chajjas edges etc.	1150	sqm		
4.3	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts.	1680	sqm		
4.4	5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
4.5	5.22A.6.	Thermo-Mechanically Treated bars.	25125	Kg		
		5.0 BRICKWORK / Painting				
5.1	6.31	Brick work with common burnt clay machine moulded perforated modular bricks of class designation 12.5 conforming to IS : 2222 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand).				

5.2	6.31.1	From ground level upto plinth level	35	cum		
5.3	6.31.2	Above plinth level upto floor V level	1512	sqm		
5.4	13.99	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
5.5	13.99.1	One or more coats on old work	Sqm	625.00		
		6.0 Dismantling and fencing work				
6.1	15.3	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge. F	175	cum		
6.2	16.19	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.	550	kg		
6.3	16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (cost of M.S. angle, C.C. blocks shall be paid separately	3300	RM		

6.4	NS	Dismantling / removing concertina coil fencing with, with 9 horizontal R.B.T. reinforced barbed wire barbed wire upto 3 m height of wall with existing angle iron 'Y' shaped including making rolls and stacking within 50 metres lead.	3300	RM		
6.5	NS	dismantling/removing G.I.chain link pvc coated fabric fencing on L Shape angle iron fencing post an G.I. chain link fabric fencing of mesh size of 50x50 mm up to 3 meter height as per the direction of Engineer-in-charge.	850	sqm		
6.6	NS	fixing /installation of G.I. chain link pvc coated fabric fencing on L Shape angle iron fencing post an G.I. chain link fabric fencing of required width in mesh size 50x50 mm including strengthening with 2 mm dia wire or nuts, bolts and washers up to 3 meter as required complete as per the direction of Engineer-in-charge. Note-Chain link pvc fabric fencing size of 50x50mm provided by the department and other required material like as - wire, nut bolts and washer supply by the contractor	850	sqm		
6.7	NS	dismantling / removing of angle iron Y shaped barbed wire fencing post fixed in Rcc column including stacking of angle iron within 50 metres lead as per direction of Engineer - in- charge.	800	Each		
6.8	Ns	fixing of angle iron Y shaped barbed wire fencing post fixed in Rcc column as per direction of Engineer - in- charge. Note-angle iron Y shaped post provided and concrete material qty including above concrete item by the department	800	Each		

6.9	Ns	disentling /removing of iron angle fencing grill frame on Boundry wall Reinforcement concrete work including stacking of angle iron within 50 metres lead as per direction of Engineer - in- charge. as per direction of Engineer-in- charge Note- iron angle fencing grill framesize of (3m x0.5m) provided by the department Only installation work complete by the contractor	280	sqm		
6.1	Ns	Proper fixing of iron angle fencing grill frame on Boundry wall Reinforcement concrete work as per direction of Engineer - in- charge. as per direction of Engineer-in- charge Note- iron angle fencing grill provided by the department Only installation work complete by the contractor	280	sqm		
		TOTAL AMOUNT			Excluding GST	-