

**Ministry of Health & Family Welfare
Government of India
REGIONAL INSTITUTE OF MEDICAL SCIENCES
IMPHAL**

No. RIMS/HSCC/2010/01

1st April , 2010

INVITATION FOR BIDS

Director, Regional Institute of Medical Sciences, Imphal intends to invite bids from eligible contractors/firms for the following works :

Package No	Name & Description of work	Estimated Cost (Rs.)	Completion period of work (months) including rainy season	Date of issue of Bid documents	Last date of submission
1.	Construction of OPD, Nursing College including internal and external services Plumbing, Electrical, Firefighting & HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur	Rs. 39 Crores	30 months (Thirty months)	From 0900 hrs of 01-04-2010 till 1500 hrs on 20-04-2010	Till 1500 hrs on 21-04- 2010
2	Construction of Academic Block, Library Block & Guest House including internal and external services Plumbing, Electrical, Firefighting & HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur	Rs.30 Crores	30 months (Thirty months)	From 0900 hrs of 01-04-2010 till 1500 hrs on 20-04-2010	Till 1500 hrs on 21-04- 2010

The pre-qualification document (Volume-I), General Conditions of Contract (Volume-II), Instructions to Bidders and Specific Conditions of Contract (Volume-III) have been made available at HSCC website <http://www.hsccltd.co.in> and RIMS, Imphal website www.rims.edu.in. The interested applicants/firms may download and check their eligibility for the work. Applicants are also advised to keep on checking the website regularly for amendments/clarification, if any. Interested applicants/firms may also see the complete set of Bid Documents which have been kept at dispatch counter of HSCC Corporate Office, E6(A), Sector-1, Noida.

Interested contractors/firms may purchase the Tender document in person from the office of HSCC (India) Limited, Noida on any working day as mentioned above on written request mentioning the name & description of work against a non-refundable fee of Rs.10,000/- for each package through cash/demand draft in favour of HSCC (India) Ltd., Noida payable at Noida. Interested applicants/firms may like to attend the **pre bid meeting** which is scheduled to be held at HSCC, Noida office on 15-04-2010 from 14 00 hrs onwards.

The tender documents should be submitted, complete in all respects, on or before due date and time as mentioned above at HSCC Corporate Office at Noida. Director/ HSCC reserves the right to accept or reject any application without assigning any reason thereof or incurring any liability whatsoever.

Prospective bidders are advised to regularly scan through HSCC website as corrigendum/amendment etc., if any, will be notified on the HSCC website and separate advertisement will not be made for this.

Director
Regional Institute of Medical Sciences
Imphal

**REGIONAL INSTITUTE OF MEDICAL SCIENCES
IMPHAL**

**CONSTRUCTION OF OPD & NURSING COLLEGE
UNDER PHASE - II
FOR
RIMS
AT
IMPHAL**

Volume – I

PREQUALIFICATION

Tender No : RIMS/HSCC/2010/01(P-I) dated _____

April 2010

ह.स.कं.क.

HSCC

HSCC (INDIA) LIMITED

**Plot – 6(A), Block – E, Sector 1,
NOIDA – UP – 201301**

Phone : +91 120 2542436-40
Website : <http://www.hsccltd.co.in>

Fax : +91 120 2542447

**Ministry of Health & Family Welfare
Government of India
REGIONAL INSTITUTE OF MEDICAL SCIENCES
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2	Construction of Academic Block, Library Block & Guest House including internal and external services Plumbing, Electrical, Firefighting & HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur	Rs.30 Crores	30 months (Thirty months)	From 0900 hrs of 01-04-2010 till 1500 hrs on 20-04-2010	Till 1500 hrs on 21-04-2010

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Interested contractors/firms may purchase the Tender document in person from the office of HSCC (India) Limited, Noida on any working day as mentioned above on written request mentioning the name & description of work against a non-refundable fee of Rs.10,000/- for each package through cash/demand draft in favour of HSCC (India) Ltd., Noida payable at Noida. Interested applicants/firms may like to attend the pre bid meeting which is scheduled to be held at HSCC, Noida office on 15-04-2010 from 14 00 hrs onwards.

The tender documents should be submitted, complete in all respects, on or before due date and time as mentioned above at HSCC Corporate Office at Noida. Director/ HSCC reserves the right to accept or reject any application without assigning any reason thereof or incurring any liability whatsoever.

Prospective bidders are advised to regularly scan through HSCC website as corrigendum/amendment etc., if any, will be notified on the HSCC website and separate advertisement will not be made for this.

Director
Regional Institute of Medical Sciences
Imphal

INSTRUCTION TO APPLICANTS

PROJECT NAME : Construction of OPD & Nursing College including internal and external services Plumbing Electrical, Firefighting & HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur

EMPLOYER / CLIENT : Director, Regional Institute of Medical Sciences,
Imphal, Manipur

1.0 SCOPE OF BID:

- 1.1 Director, Regional Institute of Medical Sciences, Imphal, Manipur (hereinafter called "RIMS" or "The Employer") intends to Pre-qualify agencies/firms for the above works as detailed in Clause 1.2.
- 1.2 BRIEF DETAILS: The brief details of the complete work is as under:

Construction of OPD & Nursing College for Regional Institute of Medical Sciences at Imphal, Manipur – comprising G+1/G+2/G+3 RCC framed structures including internal and external services Plumbing , Electrical, Firefighting & HVAC etc., and its maintenance during the defect liability period including preparation of shop drawings for all services.

Estimated Cost of Works : Rs 39 crores

Time of Completion : 30 months (Thirty Months)

- 1.3 The pre-qualification is open to all the firms having sound financial, technical background and experience of successfully executing projects of similar nature and magnitude.

2.0 SUBMISSION OF APPLICATION:

- 2.1 Application for Pre-Qualification along with the complete tender documents must be submitted complete in all respect in sealed envelopes and must either be delivered by hand or by registered mail, addressed to **General Manager (Civil), HSCC (India) Limited, Plot – 6(A), Block-E, Sector 1, Noida – 201301, Uttar Pradesh**, so as to reach not later than 21-04-2010 on or before 1500 hrs. The envelopes should be clearly marked "**Tender for Construction of OPD & Nursing College including internal and external services Plumbing, Electrical, Fire fighting & HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur**". Applicants should also see clause 15.0 of Volume II – Instructions to Bidders and Specific Conditions of Contract.
- 2.2 The name and mailing address of the Applicant should be clearly marked on the envelope.
- 2.3 All the information asked for pre-qualification shall be answered in the ENGLISH language by all the agencies / firms.

- 2.4 Failure to
- (i) provide information in the stipulated format enclosed
 - (ii) to provide timely clarification
 - (iii) substantiation of the information supplied (considered essential to evaluate the Applicant's qualification)
- may result in disqualification of the Applicant.

3.0 PRE-QUALIFICATION CRITERIA:

Pre-Qualification will be based on meeting all the minimum criteria for pre-qualification.

- 3.1 The Applicant should meet the following minimum criteria for Pre-Qualification :

- (i) **Average Annual Financial Turnover during the last three financial years, i.e., 2007-08, 2008-09 & 2009-10, should be at least 30% of the estimated cost of this project. Audited Balance Sheets for the relevant Financial Years to be submitted (Fill enclosed annexure-III).**
- (ii) **Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:**
 - a. **Three similar completed works costing not less than the amount equal to 40% of the estimated cost of the work.**
 - or**
 - b. **Two similar completed works costing not less than the amount equal to 50% of the estimated cost of the work.**
 - or**
 - c. **One similar completed work costing not less than the amount equal to 80% of the estimated cost of the work.**

“Similar Works” shall mean construction of RCC Framed Building Works including Internal & External Services like Plumbing, Electrical, Firefighting & HVAC etc.

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

In case the Bidder does not have the experience of major specialized works like plumbing, HVAC, electrical, fire-fighting etc., such specialized work shall be carried out by specialized agencies having sound financial background and experience of executing works of similar nature and magnitude. The bidder is required to give an undertaking as per enclosed format at Annexure- VII.

A certificate from client for completion of work(s) must be submitted along with application.

3.2 Financial Capabilities: The Applicant should submit Audited Balance Sheets for the last five financial years i.e. 2005-06, 2006-07, 2007-08, 2008-09 & 2009-10. The applicant should not have incurred any loss in more than two years during the last five financial years ending March 31st, 2010. **(Fill enclosed Annexure - III)**

3.3 Minimum Solvency Requirement:

A solvency certificate from applicant's Bank (Nationalized/Scheduled) that applicant is solvent for **30%** of the Estimated Project Cost. The certificate should be not more than one year old.

3.4 The firm should submit an affidavit duly notarized that they have not abandoned any work of Union Government/ any State Government(s)/ PSU's etc. during the last 5 years. They should also submit a separate affidavit that they have not been blacklisted, debarred, declared non-performer or expelled by Union Government/any State Government(s)/ PSU's etc. during the last 5 years.

3.5 The applicant should provide information regarding litigation/ Arbitration cases for the last five years as per Annexure - V.

3.6 The bidder should also submit an undertaking that minimum funds equivalent to about requirement of four months (average) can be managed by the bidder in case funds are delayed by the Employer.

4.0 PERSONNEL & EQUIPMENT CAPABILITIES

4.1 **Personnel Capabilities:** The firm should have suitable qualified and experienced personnel for the successful completion of the works. List of employees and bio-data of key officials shall be submitted stating clearly how these would be involved in this work. (Fill enclosed Annexure - I).

4.2 **Equipment Capabilities:** The Applicant should provide an undertaking regarding availability of equipments required for the completion of the project, along with list of equipments indicating whether owned or are to be hired. In case equipments are to be hired, then source of equipments and their willingness in writing may also be indicated. **(Fill enclosed Annexure-II).**

5.0 EXPERIENCE OF CONSTRUCTION OF PROJECTS OF SIMILAR NATURE & COMPLEXITY

The applicant shall submit information about their the past experience in construction of projects of similar nature and complexity with information about magnitude of the Projects, Type of Projects, Completion Certificate from Client, Time Overrun if any, Cost over run if any . **(Fill enclosed Annexure -IV).**

6.0 OTHER INFORMATION TO BE SUBMITTED ALONGWITH APPLICATION

- 6.1 Registration/ Licence: The firm should have Works Contract Tax/VAT Registration with the appropriate Authorities. In case the firm is not registered at the time of submission of bid; they will submit an undertaking that they will get themselves registered with the concerned authorities.
- 6.2 The applicant shall submit the supporting documents regarding the information given in the Annexure –I to Annexure - V, as required.
- 7.0 Even though the Applicants meet the minimum prequalification criteria, they are subject to be disqualified, if they have:
- made misleading or false representation in the form(s), statement(s) and attachment(s) submitted;
 - or
 - Record of poor performance - such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures, etc.
 - or
 - The performance of any agency already worked/ working with HSCC/RIMS/Ministry of Health & Family Welfare, Government of India (MOHFW) is
 - o not found satisfactory.
 - or
 - o found to have been black listed in any of the works.
 - or
 - o debarred or non-performer in any of the works as on date of submission of the bid.
 - or
 - Non response or non-submission of clarifications within the specified time.
- 8.0 The applicants are advised to visit the site to get first hand information as regards its approach, accessibility, working conditions, site conditions, availability of labour and material etc. and other matters affecting cost and work. All costs incurred in connection with submission of the pre-qualification application shall be borne by the applicant irrespective of the outcome.
- 9.0 If any information furnished by the applicant is found incorrect at a later stage, the applicant shall be liable to be debarred from participating in tenders of HSCC/RIMS/MOHFW apart from legal action against the applicant as deemed fit and decided by the employer. The department reserves the right to verify the particulars furnished by the applicant independently.
- 9.1 RIMS/HSCC may ask for any additional information and/or clarification from the applicant. The applicant shall submit such additional information and/or clarification as requested by RIMS/HSCC within the time specified in the communication, failing which it will be treated as non-response or non-submission of clarifications as contained in clause herein above.

10.0 The competent authority to pre-qualify shall have the power to relax any condition/criterion for pre-qualification if it considers expedient to do so.

11.0 Even though the agency meets all the criteria, the Employer/Consultant reserves the right to accept or reject any applicant/disqualify any agency without assigning any reason whatsoever.

12.0 UPDATING QUALIFICATION INFORMATION

12.1 Applicants shall be required to update the financial information used for Pre-Qualification as and when asked for and at the time of submitting their bids, to confirm their continued compliance with the pre-qualification criteria and verification of information provided.

13.0 GENERAL

13.1 **The bids of only the agencies/firms who have been pre-qualified under this procedure shall be considered for further evaluation.** A firm may submit only one bid for the contract. If a firm submits more than one bid, then all the bids of the firm will be rejected.

13.2 The Employer / Consultant reserve the right to :

- (a) Reject or accept any application without assigning any reason or incurring any liability thereof
- (b) Cancel the pre-qualification process and reject all applications
- (c) Split the works into different packages, if required
- (d) Amend the scope and value of any contract under this project, in such event the bids will only be called from those pre-qualified applicants who meet the requirements of the contract as amended.
- (e) Reduce framework and area of building/delete any subhead of BOQ/delete any portion (or) floor of the building to keep the cost with in the Budget.

13.3 Joint ventures companies shall not be allowed to participate in the bid. Experience of any work done in joint venture shall also not be considered.

13.4 No correspondence either from successful/pre-qualified applicant(s) or unsuccessful Applicant(s) will be entertained in this regard.

13.5 Check list format attached at Annexure VI must be filled and enclosed along with the application.

Director
Regional Institute of Medical Sciences
Imphal

LETTER OF APPLICATION

NOTE: On the letterhead paper of the applicant including full postal address, telephone no., fax no., telex no. and cable address]

Date : _____

To,

Director
Regional Institute of Medical Sciences
Imphal
795 004
Manipur

Sirs,

1. Being duly authorised to represent and act on behalf of (hereinafter referred to as “the Applicant”) and having reviewed and fully understood all the pre-qualification information provided, the undersigned hereby apply to be considered by yourselves as a bidder for the **Construction of OPD & Nursing College including internal and external services Plumbing , Electrical , Firefighting & HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur and its maintenance during the defect liability period including preparation of shop drawings for all services.**

Pre-qualification No.	Client Name
HSCC/RIMS/2010/01 (P-I)	Regional Institute of Medical Sciences, Imphal, Manipur

2. Attached to this letter are copies or original documents defining:
- (a) the applicants legal status
 - (b) the principal place of business
 - (c) the place of incorporation (for applicants who are corporations) or the place of registration and the nationality of the owners (for applicants who are partnerships or individually owned firms).
 - (d) application form no. 1 to 6
3. The Employer/ Consultant and its your authorized representatives are hereby authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this application, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This letter of application will also serve as authorization for any individual or

authorized representative or any institution referred to in the supporting information, to provide such information deemed necessary and requested by yourselves to verify statements and information provided in this application, or with regard to the resources, experience, and competence of the Applicant.

4. Your agency and its authorized representatives may contact the following persons for further information:

General, Personnel, Technical and Financial Enquiries	
Contact 1 :	Telephone 1 :
Contact 2 :	Telephone 2 :

5. This application is made in the full understanding that :
- (a) Bids by pre-qualified applicants will be subject to verification of all information submitted for pre-qualification at the time of bidding
- (b) Your agency reserve the right to :
- amend the scope and value of the contract/bid under this project ; in such event, bids will only be called from pre-qualified bidders who meet the revised requirements ; and
 - reject or accept any application, cancel the pre-qualification process, and reject all applications without assigning reasons or incurring any liability thereof ; and
- (c) Your agency shall not be liable for any such actions and shall be under no obligation to inform the Applicant
6. The undersigned declare that statements made and the information provided in the duly completed application are true and correct in every detail.

Sealed & Signed
Name
For and on behalf of

APPLICATION FORM NO. 1

GENERAL INFORMATION

All individual firms applying for pre- qualification are requested to complete the information in this form. Information to be provided for all owners or APPLICANTS who are partnerships or individually-owned firms.

1.	Name of firm
2	Head office address
3	Telephone Contact
4	Fax E-mail No.
5	Place of incorporation/ Registration Year of incorporation/ registration

Authorized Signatory of bidder

APPLICATION FORM NO. 2

STRUCTURE AND ORGANIZATION

1. Name & address of the applicant
2. Telephone No. / Telex No. / Fax No.
3. Legal status of the applicant (attach copies of original document defining the legal status)
 - (a) An individual
 - (b) A proprietor firm
 - (c) A firm in partnership
 - (d) A Limited Company or Corporation.
4. Particulars of registration with various Government bodies (attach attested photocopy)

Organisation /Place of registration	Registration No.
-------------------------------------	------------------
5. Name and Titles of Directors & Officers with designation to be concerned with this work.
6. Designation of individuals authorised to act for the organisation
7. Was the applicant ever required to suspend construction for a period of more than six months continuously after you commenced the construction? If so, give the name of the project and reasons of suspension of work.
8. Has the applicant ever abandoned the awarded work before its completion. If so, give name of the project and reasons for abandonment.
9. Has the applicant ever been debarred / black listed for tendering in any organisation at any time. If so, give details.
10. Has the applicant ever been convicted by a court of law? If so, give details.
11. Any other information considered necessary but not included above.

Authorized Signatory of bidder

APPLICATION FORM NO. 3

Annexure - I

PERSONNEL CAPABILITIES

Sl. No.	Designation	Total Number	Number available for this work	Name	Qualification	Professional experience and details of work carried out	How these would be involved in this work	Remarks

Authorized Signatory of bidder

APPLICATION FORM NO. 4

Annexure - II

EQUIPMENT CAPABILITIES

Sl. No.	Name of Equipment	Present Status		Age	Condition	Ownership Status			Current Location	Remarks
		Capacity or Type	Nos.			Presently owned	Leased	To be purchased		

Authorized Signatory of bidder

APPLICATION FORM NO. 5

Annexure - III

FINANCIAL CAPABILITIES

(Rs. In lakhs)

Financial Year	Annual Turn Over in Indian Rupees (or equivalent to Indian Rupees) as per Audited Balance Sheet
2007-2008	Rs.
2008-2009	Rs.
2008-2009(Provisional if not finalised)	Rs.
Average Annual Turnover over the past three years	Rs.

Financial Information in Rs. Equivalent	For year 2005-2006	For year 2006-2007	For year 2007-2008	For year 2008-2009	For year 2009-10
1. Total Assets					
2. Current Assets					
3. Total Liabilities					
4. Current Liabilities					
5. Profit before Tax					
6. Profit after Tax					
7. Net Worth					

NOTE : The above data is to be supported by audited balance sheets

1. Attach copies of audited balance sheets for the last five years (2005-06, 2006-07, 2007-2008, 2008-2009 & 2009-2010). Audited balance sheets should mention the membership number of chartered accountant issued by ICAI along with the full address.
2. Attach recent solvency certificate from bankers

Authorized Signatory of bidder

APPLICATION FORM NO. 6
Annexure - IV

EXPERIENCE OF CONSTRUCTION OF PROJECTS OF SIMILAR NATURE & COMPLEXITY

(During last seven years ending last day of month previous to the one in which applications are invited)

Sl. No.	Name of work / project and location	Owner or sponsoring organization	Cost of work in Lakhs	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Name and address/ telephone number of officer to whom reference may be made	Remarks

NOTE : Please attach supporting documents (Completion certificates along with order copies) for the above information

Authorized Signatory of bidder

APPLICATION FORM NO. 7

Annexure - V

Litigation Details Court Cases/arbitration

Name of Bidder

Year	Name of the work	Name of the Client, with Address	Title of the court Case/Arbitration	Detail of the Court/ Arbitrator	Status Pending/ Decided	Disputed Amount (Current Value, the equivalent) in case of Court Cases/ arbitration	Actual Awarded Amount (Rs) in decided Court Cases/ arbitration

Authorized Signatory of bidder

Annexure - VI

Check-List

S. No	Criteria	Requirements	Cross Referencing / Page no. at which required information is available (To be mentioned)	Indicate Eligibility YES / NO
1	Average Turnover for last three years	30% of the estimated project cost		
2	Experience	Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following: a. Three similar completed works costing not less than the amount equal to 40% of the estimated cost of the work. or b. Two similar completed works costing not less than the amount equal to 50% of the estimated cost of the work. or c. One similar completed work costing not less than the amount equal to 80% of the estimated cost of the work.		
3	Personnel Capabilities	List of suitable qualified and experienced personnel in relevant field		
4	Equipment Capabilities	List of equipment required and proposed to be deployed & source of such equipments		
5	Financial Capability	<ul style="list-style-type: none"> ▪ Net worth positive for two years ▪ Profit earning in at least three years out of the past five years 		
6	Solvency Certificate	Solvency certificate from applicant's bank for 30% of the estimated project cost.		
7	Abandoning / Blacklisting	Affidavit regarding not abandoned /Black listing/debarred/declared non-performer for any work of Union Govt./any State Govt.(s)/ PSU's etc. during last 5 years		

Authorized Signature of Bidder with stamp

ANNEXURE-VII

UNDERTAKING

We do hereby undertake to engage a specialised agency after approval of HSCC (India) Ltd. for undertaking the execution of works of <Name of Specialized Work> - <Name of the project> whose minimum qualification shall be as under:

- (i) Average Annual Financial Turnover during the last three financial years, i.e., 2007-08, 2008-09 & 2009-10, should be at least 30% of the cost of the works
- (ii) Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:
 - a. Three similar completed works costing not less than the amount equal to 40% of the cost of the works.
or
 - b. Two similar completed works costing not less than the amount equal to 50% of the cost of the works.
or
 - c. One similar completed work costing not less than the amount equal to 80% of the cost of the works.
- (iii) We shall be solely responsible for successful and timely execution of the work.

Authorized Signature of Bidder with stamp

**REGIONAL INSTITUTE OF MEDICAL SCIENCES
IMPHAL**

TENDER FOR

**CONSTRUCTION OF OPD & NURSING COLLEGE
UNDER PHASE - II**

**FOR
RIMS
AT
IMPHAL**

Volume – II

GENERAL CONDITIONS OF CONTRACT

Tender No : RIMS/HSCC/2010/01(P-I) dated _____

April 2010

ह.स.कं.क.

HSCC

HSCC (INDIA) LIMITED

Plot – 6(A), Block – E, Sector 1,

NOIDA – UP – 201301

Phone : +91 120 2542436-40

Fax : +91 120 2542447

Website : <http://www.hsccltd.co.in>

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GENERAL CONDITIONS OF CONTRACT

Definitions and Interpretation

1.1 Definitions

In the Contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

- (a) i. "Employer/Principal Employer" means the persons named as such in Volume - III of these Conditions and the legal successors in title to such person, but not any assignee of such person.
- ii. "Consultant" means the HSCC (India) Ltd. known as Chairman-Cum- Managing Director, HSCC (India) Ltd, and his successors in office and assignees acting for and on behalf of the employer.
- iii. "Engineer" means the person/officer nominated by the Chairman – Cum-Managing Director, HSCC (India) Ltd. appointed by employer to act as Engineer for the purposes of the contract and named as such in Part II of these Conditions.
- iv. "Engineer's Representative" means a person appointed from time to time by the Engineer under Sub-Clause 2.2.
- v. "Contractor" means an individual or firms (proprietary or partnership) whether incorporated or not, that has entered into contract (with the employer) and shall include his / its heirs, legal representatives, successors and assigns, successors in interest of individuals or persons. Composing such firms or successors of such firms or the permitted assigns of such individual or firms. Changes in the constitution of the firm, if any shall be immediately notified to the employer, in writing and approval obtained for continued performance of the contract.
- vi. "Party" means the Employer or the Contractor and "Parties" meant both of them.
- vi. "Subcontractor" means any person named in the Contract as a Subcontractor for a part of the Works or any person to whom a part of the Works has been subcontracted by the contractor with the consent of the Engineer and the legal successors in title to such person, but not any assignee of any such person. However such arrangements should be brought to the notice of Principle Employer.

- (b)
 - i. "Contract" means these conditions contained in the Volume I, II and III, the Specification, the Drawings, the Bill of Quantities, the Tender, the Letter of Acceptance, the Contract Agreement (if completed) and such further documents as may be expressly incorporated in the Letter of Acceptance or Contract Agreement (if completed).
 - ii. "Specification" means the specification of the Works included in the Contract and any modification thereof or addition thereto made under Clause 51.1 & 51.2 or submitted by the Contractor and approved by the Engineer.
 - iii. "Drawings" means all drawings, calculations and technical information of a like nature provided by the Engineer to the Contractor under the Contract and all drawings, calculations, samples, patterns, models, operation and maintenance manuals and other technical information of a like nature submitted by the Contractor and approved by the Engineer.
 - iv. "Bill of Quantities" means the priced and completed bill of quantities forming part of the Tender.
 - v. "Tender" means the Contractor's priced offer to the Employer for the execution and completion of the Works and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Acceptance. The word Tender is synonymous with "Bid" and the words "Tender Documents" with "Bidding Documents".
 - vi. "Letter of Acceptance" means the formal acceptance by the HSCC of the Tender on behalf of the Employer.
 - vii. "Contract Agreement" means the contract agreement (if any) referred to in Sub-Clause 9.1.
 - viii. "Appendix to Tender" means the appendix comprised in the form of Tender annexed to these Conditions.
- (c)
 - i. "Commencement Date" means the date upon which the Contractor receives the notice to commence the works as issued by the Engineer pursuant to Clause 41.1.
 - ii. "Time for Completion" means the time for completing the execution of and passing the Tests on Completion of the Works or any Section or part thereof as stated in the Contract (or as extended under Clause 44.1, 44.2 & 44.3) calculated from the Commencement Date.

otherwise agreed by the Engineer and the Contractor which are to be made by the Contractor before the Works or any Section or part thereof are taken over by the employer.

- ii. "Taking-Over Certificate" means a certificate issued pursuant to Clause 48.1 to 48.4.
- (e) i. "Contract Price" means the sum stated in the Letter of Acceptance as payable to the Contractor for the execution and completion of the Works and the remedying of any defects therein in accordance with the provisions of the Contract.
- ii. "Retention Money" means the aggregate of all monies retained by the Employer pursuant to Sub-Clause 60.1 (h) or 60.5.
- (f) i. "Works" means the Permanent Works and the Temporary Works or either of them to be executed in accordance with the contract.
- ii. "Permanent Works" means the permanent works to be executed (including Plant) in accordance with the Contract.
- iii. "Temporary Works" means all temporary works of every kind (other than Contractor's Equipment) required in or about the execution and completion of the Works and the remedying of any defects therein.
- iv. "Plant" means machinery, apparatus and the like intended to form or forming part of the Permanent Works.
- v. "Contractor's Equipment" means all appliances and things of whatsoever nature (other than Temporary Works) required for the execution and completion of the Works and the remedying of any defects therein, but does not include Plant, materials or other things intended to form or forming part of the Permanent Works.
- vi. "Section" means a part of the Works specifically identified in the Contract as a Section.
- vii. "Site" means the places provided by the Employer where the Works are to be executed and any other places as may be specifically designated in the Contract as forming part of the Site.
- (g) i. "Cost" means all expenditure properly incurred or to be incurred, whether on or off the Site, including over head and other charges properly allowable there but does not include any allowance for profit.
- ii. "Day" means calendar day.

- iii. "Foreign Currency" means a currency of a country other than that in which the Works are to be located.
- iv. "Writing" means any hand-written, type-written, or printed communication, including telex, cable and facsimile transmission.

1.2 Heading and Marginal Notes

The headings and marginal notes in these Conditions shall not be deemed part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.

1.3 Interpretation

Words importing persons or parties shall include firms and corporations and any organisation having legal capacity.

1.4 Singular and Plural

Words importing the singular only also include the plural and vice versa where the context requires.

1.5 Notices, Consents, Approvals, Certificates and Determinations.

Wherever in the Contract provision is made for the giving or issue of any notice, consent, approval, certificate or determination by any person, unless otherwise specified such notice, consent, approval, certificate or determination shall be in writing and the words "notify", "certify" or "determine" shall be construed accordingly.

ENGINEER AND ENGINEER'S REPRESENTATIVE.

2.1 Engineer's Duties and Authority

- (a) The Engineer shall carry out the duties specified in the Contract.
- (b) The Engineer may exercise the authority specified in or necessarily to be implied from the Contract, provided, however, that if the Engineer is required, under the terms of his appointment by the Employer, to obtain the specific approval of the Employer before exercising any such authority particulars of such requirement shall be set out in part II of these Conditions. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Engineer.

2.2 Engineer's Representative

- (a) The Engineer's Representative shall be appointed by and be responsible to the Engineer and shall carry out such duties and exercise such authority as may be delegated to him by the Engineer under Sub-Clause 2.2 (b).

Engineer's Authority to Delegate

- (b) The Engineer may from time to time delegate to the Engineer's Representative any of the duties and authorities vested in the Engineer and he may at any time revoke such delegation. Any such delegation or revocation shall be in writing and shall not take effect until a copy thereof has been delivered to the Contractor.

2.3 Communication Given by Engineer's Representative

Any communication given by the Engineer's Representative to the Contractor in accordance with such delegation shall have the same effect as though it had been given by the Engineer. Provided that:

- (a) any failure of the Engineer's Representative to disapprove any work, materials or Plant shall not prejudice the authority of the Engineer to disapprove such work, materials or Plant and to give instructions for the rectification thereof;
- (b) if the Contractor questions any communications of the Engineer's Representative he may refer the matter to the Engineer who shall confirm, reverse or vary the contents of such communication.

2.4 Appointment of Assistants

The Engineer or the Engineer's Representative may appoint any number of persons to assist the Engineer's Representative in the carrying out of his duties under Sub-Clause 2.2. He shall notify to the Contractor the names, duties and scope of authority of such persons. Such assistants shall have no authority to issue any instructions to the Contractor save in so far as such instructions may be necessary to enable them to carry out their duties and to secure their acceptance of materials, Plant or workmanship as being in accordance with the Contract, and any instructions given by any of them for those purposes shall be deemed to have been by the Engineer's Representative.

2.5 Instructions in Writing

Instructions given by the Engineer shall be in writing, provided that if for any reason the Engineer considers it necessary to give any such instruction orally, the Contractor shall comply with such instruction. Confirmation in writing of such oral instruction given by the Engineer, whether before or after carrying out of the instruction shall be deemed to be an instruction, within the meaning of this Sub-Clause. Provided further that if the Contractor, within 7 days, confirms in writing to the Engineer any oral instruction of the Engineer and such confirmation is not contradicted in writing within 7 days by the Engineer, it shall be deemed to be an instruction of the Engineer.

The provisions of this Sub-Clause shall equally apply to instructions given by the Engineer's Representative and any assistants of the Engineer or the Engineer's Representative appointed pursuant to Sub-Clause 2.4.

2.6 Engineer to Act Impartiality

Wherever, under the Contract, the Engineer is required to exercise his discretion by:

- (a) giving his decision, opinion or consent, or
- (b) expressing his satisfaction or approval, or
- (c) determining value, or
- (d) otherwise taking action which may affect the rights and obligations of the Employer or the Contractor he shall exercise such discretion impartially within the terms of the Contract and having regard to all the circumstances. Any such decision, opinion, consent, expression of satisfaction, or approval, determination of value or action may be opened up, reviewed or revised as provided in Clause 67.1 to 67.4.

ASSIGNMENT AND SUBCONTRACTING

3.1 Assignment of Contract

The Contractor shall not, without the prior consent of the Consultant (which consent, shall be at the sole discretion of the Consultant), assign the Contract or any part thereof, or any benefit or interest therein or there under, otherwise than by:

- (a) a charge in favour of the Contractor's bankers of any monies due or to become due under the Contract, or
- (b) assignment to the Contractor's insurers (in cases where the insurers have discharged the Contractor's loss or liability) of the Contractor's right to obtain relief against any other party liable. The provision of labour as piece work basis shall not deemed to be subcontracting under this clause.

4.1 Sub-Contracting

The Contractor shall not subcontract the whole of the Works. Except where otherwise provided by the Contract, the Contractor shall not subcontract any part of the Works without the prior consent of the Engineer. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of a Subcontractor, his agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents, servants or workmen.

Provided that the Contractor shall not be required to obtain such consent for:

- (a) the provision of labour, or

- (b) the purchase of materials which are in accordance with the standards specified in the Contract, or

4.2 Assignment of Sub-Contractors Obligations

In the event of a Subcontractor having undertaken towards the Contractor in respect of the work executed, or the goods, materials, Plant or services supplied by such Subcontractor, any continuing obligation extending for a period exceeding that of the Defects Liability Period under the Contract, the Contractor shall at any time, after the expiration of such Period, assign to the Employer, at the Employer's request and cost, the benefit of such obligation for the unexpired duration thereof.

CONTRACT DOCUMENTS

5.1 Language/s, Law and Jurisdiction

- (a) The language in which the Contract documents shall be drawn up, is English.
- (b) The country the law of which shall apply to the Contract and according to which the Contract shall be construed is India and the contract is subject to the jurisdiction Delhi Court.

5.2 Priority of Contract Documents

The several documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Engineer who shall thereupon issue to the Contractor instructions thereon and in such event, unless otherwise provided in the Contract, the priority of the documents forming the Contract / referred in contract shall be as follows:

- | | |
|--|------------|
| 1. Bill of quantities | Volume V |
| 2. Special conditions of contract | Volume III |
| 3. General Conditions of Contract | Volume II |
| 4. Particular Technical Specification | Volume IV |
| 5. Drawings | |
| 6. Any other document referred in contract | |

6.1 Custody and Supply of Drawings and Documents

The Drawings shall remain in the sole custody of the Engineer, but two copies thereof shall be provided to the Contractor free of charge. The Contractor shall make at his own cost any further copies required by him. Unless it is strictly necessary for the purposes of the Contract, the Drawings, Specification and other documents provided by the Employer or the Engineer shall not, without the consent of the Engineer, be used or communicated to a third party by the Contractor. Upon issue of the Defects Liability Certificate (Clause 61.1), the Contractor shall return to the Engineer all Drawings, Specifications and other documents provided under the Contract.

The Contractor shall supply to the Engineer four copies of all Drawings, Specifications and other documents approved by the Engineer in accordance with Clause 7.1 to 7.3 and 39.3a of Volume –III together with a reproducible copy of any material which cannot be reproduced to an equal standard by photocopying. In addition the Contractor shall supply such further copies of such Drawings, Specification and other documents as the Engineer may request in writing for the use of the Employer, the cost for the same shall be deemed to have been included in the contract as per para 39.4 of Volume –III

Drawings, specifications and other documents as the Engineer may request for the use of Employer

6.2 One Copy of Drawings to be kept on Site

One copy of the Drawings, provided to or supplied by the Contractor as aforesaid, shall be kept by the Contractor on the Site and the same shall at all reasonable times be available for inspection and use by the Engineer and by any other person authorised by the Engineer in writing.

6.3 Disruption of Progress

The Contractor shall give notice to the Engineer, whenever planning or execution of the Works is likely to be delayed or disrupted unless any further drawing or instruction is issued by the Engineer within 60 days or such other reasonable time as may be decided by the Engineer. The notice shall include details of the drawing or instruction required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

6.4 Delay and Cost of Delay of Drawings

If, by reason of any failure or inability of the Engineer to issue, within a time reasonable in all the circumstances, any drawing or instruction for which notice has been given by the Contractor in accordance with Sub-Clause 6.3, the Contractor suffers delay then the Engineer shall, after due consultation with the Employer and the Contractor, determine any extension of time to which the Contractor is entitled under Clause 44.1 to 44.3.

6.5 Failure by Contractor to Submit Drawings

If the failure or inability of the Engineer to issue any drawings or instructions is caused in whole or in part by the failure of the Contractor to submit Drawings, Specification or other documents which he is required to submit under the Contract in accordance with para 39.3a Volume -III, the Engineer shall take such failure by the Contractor into account when making his determination pursuant to Sub-Clause 6.4.

7.1 Supplementary Drawings and Instructions

The Engineer shall have authority to issue to the Contractor, from time to time, such supplementary Drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and completion of the Works and the remedying of any defects therein. The Contractor shall carry out and be bound by the same. In such cases also the matter should be brought to the notice of the Employer.

7.2 Permanent Works Designed by Contractor

Where the Contract expressly provides that part of the Permanent Works shall be designed by the Contractor, he shall submit to the Engineer, for approval:

- (a) such drawings, specifications, calculations, cost and other information as shall be necessary to satisfy the Engineer as to the suitability and adequacy of the design, and
- (b) operation and maintenance manuals together with drawings of the relevant part of the Permanent Works is completed and imparting training for operation and maintenance in sufficient detail to enable the Employer to operate, maintain, dismantle, reassemble and adjust the Permanent Works incorporating that design. The Works shall not be considered to be completed for the purpose of taking over in accordance with Clause 48.1 to 48.4 until such operation and maintenance manuals, together with drawings on completion, have been submitted to and approved by the Engineer.

7.3 Responsibility Unaffected by Approval

Approval by the Engineer, in accordance with Sub-Clause 7.2, shall not relieve the Contractor of any of his responsibilities under the Contract.

GENERAL OBLIGATIONS

8.1 Contractor's General Responsibilities

The Contractor shall, with due care and diligence, design (to the extent provided for by the Contract), execute and complete the Works and remedy any defects therein in accordance with the provisions of the Contract. The Contractor shall provide all superintendence, labour, materials, Plant, Contractor's Equipment and all other things, whether of a temporary or permanent nature, required in and for such design, execution, completion and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred

from the Contract. The contractor shall promptly notify the Employer and the Engineer of any error, omission, fault or any other defect in the design of or specifications for the works which he discovers when reviewing the contract documents or in the process of execution of the works.

8.2 Site Operations and Methods of Construction

The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations and methods of construction as per approved CPM chart Provided that the Contractor shall not be responsible (except as stated hereunder or as may be otherwise agreed) for the design or specification of Permanent Works, or for the design or specification of any Temporary Works not prepared by the Contractor. Where the Contract expressly provides that part of the Permanent Works shall be designed by the Contractor, he shall be fully responsible for that part of such Works, notwithstanding any approval by the Engineer.

9.1 Contract Agreement

The Contractor shall, if called upon so to do, enter into and execute the Contract Agreement, to be prepared and completed at the cost of the Contractor, in the form annexed to these Conditions with such modification as may be necessary.

10.1 Performance Security

The Contractor shall provide security for his proper performance of the Contract to the Employer through Engineer/ Consultant within 28 days after the receipt of the Letter of Acceptance. The performance securities shall be in the form of bank guarantee. The amount of the bank guarantee shall be 5 percent of the Contract Price for the each part. It shall be issued by a Nationalised/Scheduled bank of India. When providing such security to the Employer, the Contractor shall notify the Engineer of so doing.

Without limitation to the provisions of the preceding paragraph, whenever the Engineer determines an addition to the Contract Price as a result of a change in cost and/or legislation or as a result of a variation amounting to more than 25 percent of the Contract Price, the Contractor, at the Engineer's written request, shall promptly increase the value of the performance security by an equal percentage.

Failure of the successful bidder to lodge the required bank guarantee shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Engineer may make the award to the next lowest evaluated bidder or, if there are no other bidders, call for new bids with consent of the Employer .

10.2 Period of Validity of Performance Security

The performance security shall be valid until the Contractor has executed and completed the Works and remedied any defects therein in accordance with the Contract. No claim shall be made against such security after the issue of the Defects Liability Certificate in accordance with Sub-Clause 61.1 and such security shall be returned to the Contractor within 14 days of the issue of the said Defects Liability Certificate.

10.3 Costs of Securities

The cost of complying with the requirements of this clause shall be borne by the Contractor.

11.1 Inspection of Site

The Consultant HSCC shall have made available to the Contractor, before the submission by the Contractor of the Tender, such data on hydrological and sub-surface conditions as have been obtained by or on behalf of the Employer from investigations undertaken relevant to the Works but the Contractor shall be responsible for his own interpretation thereof.

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself (so far as is practicable, having regard to considerations of cost and time) before submitting his Tender, as to:

- (a) the form and nature thereof, including the sub-surface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works and the remedying of any defects therein, and
- (d) the means of access to the Site and the accommodation he may require.

And in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his Tender.

Data obtained from the Employer and made available by the Consultant in accordance with sub-clause 11.1 above shall be deemed to include data listed elsewhere in the contract as open for inspection at the office of the **HSCC (I) Ltd.**, Plot No. 6A, Block - E, Sector -1, Noida (U.P.)-201 301.

12.1 Sufficiency of Tender

The Contractor shall be deemed to have based his Tender on the data made available by the Consultant and on his own inspection and examination, all as aforementioned.

The Contractor shall be deemed to have satisfied himself as to the correctness and sufficiency of the Tender and of the rates and prices stated in the Bill of Quantities, all of which shall, except insofar as it is otherwise provided in the Contract, cover all his obligations under the Contract (including those in respect of the supply of goods, materials, Plant or services or of contingencies for which there is a Provisional Sum) and all matters and things necessary for the proper execution and completion of the Works and the remedying of any defects therein.

12.2 Adverse Physical Obstructions or Conditions

If, however, during the execution of the Works the Contractor encounters physical obstructions or physical conditions, other than climatic conditions on the Site, which obstructions or conditions were, in his reasonable opinion, not foreseeable by an experienced contractor, the Contractor shall forthwith give notice thereof to the Engineer. On receipt of such notice, the Engineer shall, if in his opinion such obstructions or conditions could not have been reasonably foreseen by an experienced contractor, after due consultation with the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44.1 to 44.3 and
- (b) the amount of any costs which may have been incurred by the Contractor by reason of such obstructions or conditions having been encountered, which shall be added to the Contract Price.

And shall notify the Contractor accordingly. Such determinations shall take account of any instruction which the Engineer may issue to the Contractor in connection therewith, and any proper and reasonable measures acceptable to the Engineer which the Contractor may take in the absence of specific instructions from the Engineer after duly verify by the Engineer and accepted by the Employer.

13.1 Work to be in Accordance with Contract

Unless it is legally or physically impossible, the Contractor shall execute and complete the Works and remedy any defects therein in strict accordance with the Contract to the satisfaction of the Engineer. The Contractor shall comply with and adhere strictly to the Engineer's instructions on any matter, whether mentioned in the Contract or not, touching or concerning the Works. The Contractor shall take instructions only from the Engineer or subject to the provisions of Clause 2.1 to 2.6, from the Engineer's Representative.

14.1 Programme to be Submitted

The Contractor shall, within 28 days after the date of the Letter of Acceptance, submit to the Engineer for his consent a programme, in such form and detail as the Engineer shall reasonably prescribe, for the execution of the Works. The Contractor shall, whenever required by the Engineer, also provide in writing for his information a general description of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works preferably with PERT/CPM chart.

14.2 Revised Programme

If at any time it should appear to the Engineer that the actual progress of the Works does not conform to the programme to which consent has been given under Sub-Clause 14.1 the Contractor shall produce, at the request of the Engineer, a revised programme showing the modifications to such programme with CPM chart necessary to ensure completion of the Works within the Time for Completion. Such information should also be brought to the notice of the Employer.

14.3 Cash Flow Estimate to be Submitted

The Contractor shall, within 28 days after the date of the Letter of Acceptance, provide to the Engineer for his information a detailed cash flow estimate, in quarterly periods, of all payments to which the Contractor will be entitled under the Contract and the Contractor shall subsequently supply revised cash flow estimates at quarterly intervals, if required to do so by the Engineer.

14.4 Contractor not Relieved of Duties or Responsibilities

The submission to and consent by the Engineer to such programs or the provision of such general descriptions or cash flow estimates shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

15.1 Contractor's Superintendence

The Contractor shall provide all necessary superintendence during the execution of the Works and as long thereafter as the Engineer may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. The Contractor, or a competent and authorised representative approved of by the Engineer, which approval may at any time be withdrawn, shall give his whole time to the superintendence of the Works. Such authorised representative shall receive, on behalf of the Contractor, instructions from the Engineer or, subject to the provisions of Clause 2.1 to 2.6, the Engineer's Representative.

If approval of the representative is withdrawn by the Engineer, the Contractor shall, as soon as is practicable, having regard to the requirement of replacing him as hereinafter mentioned, after receiving notice of such withdrawal, remove the representative from the Works and shall not thereafter employ him again on the Works in any capacity and shall replace him by another representative approved by the Engineer.

If the Contractor's authorised representative is not in the opinion of the Engineer fluent in English, the contractor shall have available at site at all times an interpreter competent to ensure the proper transmission of instructions and information.

16.1 Contractor's Employees

The Contractor shall provide on the Site in connection with the execution and completion of the Works and the remedying of any defects therein:

- (a) only such technical assistants as are skilled and experienced in their respective callings and such foremen and leading hands as are competent to give proper superintendence of the Works, and
- (b) such skilled, semi-skilled and un-skilled labour as is necessary for the proper and timely fulfilling of the Contractor's obligations under the Contract.

16.2 Engineers at Liberty to Object

The Engineer shall be at liberty to object to and require the Contractor to remove forthwith from the Works any person provided by the Contractor who, in the opinion of the Engineer, misconducts himself, or is incompetent or negligent in the proper performance of his duties, or whose presence on Site is otherwise considered by the Engineer to be undesirable, and such person shall not be again allowed upon the Works without the consent of the Engineer. Any person so removed from the Works shall be replaced as soon as possible.

A reasonable proportion of the Contractor's superintending staff shall have a working knowledge of English or the contractor shall have available at site at all times a sufficient number of competent interpreters to ensure a proper transmission of instructions and information.

The contractor is encouraged to the extent practicable and reasonable to employ staff and labourers from sources within India.

17.1 Setting-out

The Contractor shall be responsible for :

- (a) the accurate setting-out of the Works in relation to original points, lines and levels of reference given by the Engineer in writing,
- (b) the correctness, subject as above mentioned, of the position, levels dimensions and alignment of all parts of the Works, and
- (c) the provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities.

If, at any time during the execution of the Works, any error appears in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do so by the Engineer, shall, at his own cost, rectify such error to the satisfaction of the Engineer, unless such error is based on incorrect data supplied in writing by the Engineer, in which case the Engineer shall determine an addition to the Contract Price in accordance with Clause 52.1 to 52.4 and shall notify the Contractor accordingly.

The checking of any setting-out or of any line or level by the Engineer shall not in any way relieve the Contractor of his responsibility for the

accuracy thereof and the Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other things used in setting-out the Works.

The Contractor shall give to the Engineer not less than 72(seventy two) hours notice of his intention to set out or give levels for any part of the Works so that timely arrangement may be made for checking or issuing instructions. He shall indicate therein by which date the information, if any is required by him.

18.1 Boreholes and Exploratory Excavation

If, at any time during the execution of the works the Engineer requires the contractor to make bore-holes or to carry out exploratory excavations in excess of the requirements specified elsewhere in the contract, such requirement shall be the subject of an instruction in accordance with clause 51.1 & 51.2, unless an item or a provisional sum in respect of such work is included in the Bill of Quantities.

19.1 Safety, Security and Protection of the Environment

The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:

- (a) have full regard for the safety of all persons entitled to be upon the Site and keep the Site (so far as the same is under his control) and the Works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons, and
- (b) provide and maintain at his own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the Engineer or by any duly constituted authority, for the protection of the Works or for the safety and convenience of the public or others, and
- (c) take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods or operation.
- (d) Screen all lights provided by the Contractor so as not to interfere with any signal light on the railways or with any traffic or signal lights of any local authority.

20.1 Care of Works

The Contractor should take full responsibility for the care of the Works whether fully constructed or not and materials, Tools and Plants for incorporation therein from the Commencement Date until the date of issue of the Taking-Over Certificate for the whole of the Works, when the responsibility of the said care shall subject to clause 20.1(b) passed to the Employer, Provided that:

- (a) if the Engineer issues a Taking-Over Certificate for any Section or part of the Permanent Works the Contractor shall cease to be liable for the care of that Section or part from the date of issue of the Taking-Over Certificate, when the responsibility for the care of that Section or part shall pass to the Employer, and
- (b) the Contractor shall take full responsibility for the care of any outstanding Works and materials and Plant for incorporation therein which he undertakes to or is otherwise required to finish during the Defects Liability Period until such outstanding Works have been completed pursuant to Clause 49.1 to 49.4.

20.2 Responsibility to Rectify Loss of Damage

If any loss or damage happens to the Works, or any part thereof, or materials or Plant for incorporation therein, during the period for which the Contractor is responsible for the care thereof, from any cause whatsoever, other than the risks defined in Sub-Clause 20.4, the Contractor shall, at his own cost, rectify such loss or damage so that the Permanent Works conform in every respect with the provisions of the Contract to the satisfaction of the Engineer. The Contractor shall also be liable for any loss or damage to the Works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 49.1 to 49.4 & 50.1.

20.3 Loss or Damage Due to Employer's Risk

In the event of any such loss or damage happening from any of the risks defined in Sub-Clause 20.4, or in combination with other risks, the Contractor shall, if and to the extent required by the Engineer, rectify the loss or damage and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52.1 to 52.4 and shall notify the Contractor accordingly. In the case of combination of risks causing loss or damage any such determination shall take into account the proportional responsibility of the Contractor and the Employer.

20.4 Employer's Risks

The Employer's risks are :

- (a) (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, revolution, insurrection, or military or usurped power, or civil war,
- (iii) ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of any explosive nuclear assembly or nuclear component thereof,

- (iv) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speed,
- (b) loss or damage due to the use or occupation by the Employer of any Section or part of the Permanent Works, except as may be provided for in the Contract,
- (c) loss or damage to the extent that it is due to the design of the Works, other than any part of the design provided by the Contractor or for which the Contractor is responsible,
and
- (d) any operation of the forces of nature (insofar as it occurs on the site) which an experienced contractor:
 - (i) could not have reasonably foreseen, or
 - (ii) could reasonably have foreseen, but against which he could not reasonably have taken at least one of the following measures:
 - (A) prevent loss or damage to physical property from occurring by taking appropriate measures, or
 - (B) insure against.

21.1 Insurance of Works and Contractor's Equipment

The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 20.1 to 20.4, insure:

- (a) the Works, together with materials and Plant for incorporation therein, to the full replacement cost and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred.
- (b) an additional sum of 15 percent of such replacement cost, or as may be specified in Part II of these Conditions, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the Works and of removing debris of whatsoever nature, and it being understood that such insurance shall provide for compensation to be payable to rectify the loss or damage incurred.
- (c) the Contractor's Equipment and other things brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

The insurance under clause 21.1 shall be issued by an insurance company which has been determined by the contractor to be acceptable to the Consultant.

21.2 Scope of Cover

The insurance in paragraphs (a) and (b) of Sub-Clause 21.1 shall be in the joint names of the Contractor and the Employer and shall cover:

- (a) the Employer and the Contractor against all loss or damage from whatsoever cause arising (including natural calamities, earthquake, subsidence, landslide, rock slide, flood, storm, cyclone, fire, theft, burglary, strike, riot, sabotage, terrorism), other than as provided in Sub-Clause 21.4, from the commencement date until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and
- (b) the Contractor for his liability:
 - (i) during the Defects Liability Period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period, and
 - (ii) for loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clauses 49.1 to 49.4 and 50.1.

It shall be the responsibility of contractor to notify the Insurance Company of any change in the nature and extent of the works and to ensure the adequacy of the Insurance cover at all times during the period of contract.

21.3 Responsibility for Amounts not Recovered

Any amounts not insured or not recovered from the insurers shall be borne by the Contractor not by Employer

21.4 Exclusions

There shall be no obligation for the insurance in Sub-Clause 21.1 to include loss or damage caused by the risks listed under sub clause 20.4 para a (i) to (iv).

If the Contractor receives instructions from the Employer to insure against War Risk, such insurance if normally available shall be effected, at the cost of the Employer, with an Insurance Company acceptable to the Consultant and shall be in the joint names of the contractor and the Employer.

22.1 Damage to Persons and Property

The Contractor shall, except if and so far as the Contract provides otherwise, indemnify the Employer against all losses and claims in respect of:

- (a) death of or injury to any person, or

- (b) loss or damage to any property (other than the Works) :

Which may arise out of or in consequence of the execution and completion of the Works and the remedying of any defects therein, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in Sub-Clause-22.2.

22.2 Exceptions

The "exceptions" referred to in Sub-Clause 22.1 are:

- (a) the permanent use or occupation of land by the Works, or any part thereof,
- (b) the right of the Employer to execute the Works, or any part thereof, on, over, under, in or through any land,
- (c) damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any defects therein, in accordance with the Contract.
- (d) death of or injury to persons or loss of or damage to property resulting from any action or neglect of the Employer, his agents, servants or other contractors, not being employed by the Contractor, or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or, where the injury or damage was contributed to by the Contractor, his servants or agents, such part of the said injury or damage as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other contractors for the injury or damage.

22.3 Indemnity by Employer

The Employer shall indemnify the Contractor against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the exceptions defined in Sub-Clause 22.2.

23.1 Third Party Insurance (Including Employer's Property)

The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause 22.1 to 22.3, insure, in the joint names of the Contractor and the Employer, against liabilities for death of or injury to any person (other than as provided in Clause 24.1 to 24.2 or loss of or damage to any property (other than the Works) arising out of the performance of the Contract other than the exceptions defined in paragraphs (a), (b) and (c) of Sub-Clause 22.2.

23.2 Minimum Amount of Insurance

Such insurance shall be for at least the amount stated in Appendix to Tender.

23.3 Cross Liabilities

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insured.

24.1 Accident or Injury to Workmen

The Employer shall not be liable for or in respect of any damages or compensation payable to any workman other than for death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.

24.2 Insurance Against Accident to Workmen

The Contractor shall insure against such liability and shall continue such insurance during the whole of the time that any persons are employed by him on the Works. Provided that, in respect of any persons employed by any Subcontractor, the Contractor's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Subcontractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy, but the Contractor shall require such Subcontractor to produce to the Consultant, when required, such policy of insurance and the receipt for the payment for current premium.

25.1 Evidence and Terms of Insurance

The Contractor shall provide evidence to the Consultant/Employer as soon as practicable after the respective insurance have been taken out but in any case prior to the start of work at the Site that insurance required under the Contract have been effected and shall, within 84 days of the Commencement Date, provide the insurance policies to the Consultant/Employer. When providing such evidence and such policies to the Employer, the Contractor shall notify the Engineer of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The Contractor shall effect all insurance for which he is responsible with insurers and in terms approved by the Consultant/Employer.

25.2 Adequacy of Insurance

The Contractor shall notify the insurers of changes in the nature, extent or programme for the execution of the Works and ensure the adequacy of the insurance at all times in accordance with the terms of the Contract and shall,

when required, produce to the Consultant/Employer the insurance policies in force and the receipts for payment of the current premiums and provide copy of the same to the employer.

25.3 Remedy on Contractor's Failure to Insure

If the Contractor fails to effect and keep in force any of the insurance required under the Contract, or fails to provide the policies to Consultant/Employer within the period required by Sub-Clause 25.1, then and in any such case the Employer may effect and keep in force any such insurance and pay any premium as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due or to become due to the Contractor, or recover the same as a debt due from the Contractor.

25.4 Compliance with Policy Conditions

In the event that the Contractor or the Employer fails to comply with conditions imposed by the insurance policies effected pursuant to the Contract, each shall indemnify the other against all losses and claims arising from such failure.

The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to, the insurance referred to in Clauses 21.1 to 21.4, 23.1 to 23.3 and 24.1 to 24.2) with insurers from India.

26.1 Compliance with Statutes Regulations

The Contractor shall conform in all respects, including by the giving of all notices and the paying of all fees, with the provision of :

- (a) any National or State Statute, Ordinance, or other Law, or any regulation, or bye-law of any local or other duly constituted authority in relation to the execution and completion of the Works and the remedying of any defects therein, and
- (b) the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the Works, and the Contractor shall keep the Employer indemnified against all penalties and liability of every kind for breach of any such provision.

Provided always that the Employer shall be responsible for obtaining any planning, zoning or other similar permission required for the Works to proceed and shall indemnify the Contractor in accordance with Sub-Clause 22.3.

27.1 Fossils

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the Site shall, as between the Employer and the Contractor, be deemed to be the absolute property

of the Employer. The Contractor shall take reasonable precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall, immediately upon discovery thereof and before removal, acquaint the Engineer of such discovery and carry out the Engineer's instructions for dealing with the same. If, by reason of such instructions, the Contractor suffers delay and/or incurs costs then the Engineer shall, after due consultation with the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44.1 to 44.3, and
- (b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly.

28.1 Patent Rights

The Contractor shall save harmless and indemnify the Employer from and against all claims and proceeding for or on account of infringement of any patent right, design trademark or name or other protected rights in respect of any Contractor's Equipment, materials or Plant used for or in connection with or for incorporation in the Works and from and against all damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto, except where such infringement results from compliance with the design or Specification provided by the Engineer.

28.2 Royalties

Except where otherwise stated, the Contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the Works.

29.1 Interference with Traffic and Adjoining Properties

All operation necessary for the execution and completion of the Works and the remedying of any defects therein shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with:

- (a) the convenience of the public, or
- (b) the access to, use and occupation of public or private road, railway and any other right of way and footpaths to or of properties whether in the possession of the Employer or of any other person.

The Contractor shall save harmless and indemnify the Employer in respect of all claims, proceedings, arising out of, or in relation to any such matters insofar as the Contractor is responsible therefore.

If any plant (floating or otherwise) belonging to or hired by the Contractor or any sub-contractor or any person employed by the Contractor or by any sub-contractor or any materials or things therein or there from sink from any cause whatsoever, it

shall immediately be reported by the Contractor to the competent authorities and the Engineer's Representative, and Contractor shall forthwith, at his cost raise and remove any such plant, materials or things or otherwise deal with the same as the Engineer may direct.

The fact that such sunken plant, materials or things are insured or have been declared a total loss or do not represent any further value shall not absolve the Contractor from his obligations under this Clause to raise and remove the same. Until such sunken plant or materials or things have been raised and removed, the Contractor shall set such buoys and display at night such lights and do all such things for the safety as may be required by the competent authorities or by the Engineer's Representative.

In the event of the Contractor not carrying out the obligations imposed on him by this Clause, the Employer may cause to set buoy and display at night light on such plant and raise and remove the same without prejudice to the right of the Employer to hold the Contractor liable and all expenses and consequences thereon and incidental thereto shall be borne by the Contractor and shall be recoverable from him as a debt by the Employer or may be deducted by the Employer from any moneys due or which may become due to the Contractor.

30.1 Avoidance of Damage to Roads

The Contractor shall use every reasonable means to prevent any of the roads or bridges communicating with or on the routes to the Site from being damaged or injured by any traffic of the Contractor or any of his Subcontractors and, in particular, shall select routes, choose and use vehicles and restrict and distribute loads so that any such extraordinary traffic as will inevitably arise from the moving of materials, Plant, Contractor's Equipment or Temporary Works from and to the Site shall be limited, as far as reasonably possible, and so that no unnecessary damage or injury may be occasioned to such roads and bridges.

30.2 Transport of Contractor's Equipment or Temporary Works

Save insofar as the Contract otherwise provides, the Contractor shall be responsible for and shall pay the cost of strengthening any bridges or altering or improving any road communicating with or on the routes to the Site to facilitate the movement of Contractor's Equipment or Temporary Works and the Contractor shall indemnify and keep indemnified the Employer against all claims for damage to any such road or bridge caused by such movement, including such claims as may be made against the Employer through the Engineer after duly verified by the Engineer, and shall negotiate and pay all claims arising out of such damage.

If it is found necessary for the Contractor to move one or more loads of heavy constructional plant and equipment, materials or pre-constructed units or parts of units of work over roads, highways, bridges on which such oversized and overweight items are not normally allowed to be moved, the Contractor shall obtain prior permission from the concerned authorities. Payments for complying with the requirements, if any, for protection of or strengthening of the roads,

highways or bridges shall be made by the Contractor and such expenses shall be deemed to be included in his contract price.

30.3 Transport of Materials or Plant

If, notwithstanding Sub-Clause 30.1, any damage occurs to any bridge or road communicating with or on the routes to the Site arising from the transport of materials or Plant, the Contractor shall notify the Engineer, as soon as he becomes aware of such damage or as soon as he receives any claim from the authority entitled to make such claim. Where under any law or regulation the hauler of such materials or Plant is required to indemnify the road authority against damage the Employer shall not be liable for any costs, charges or expenses in respect thereof or in relation thereto. In other cases the Employer shall negotiate the settlement of and pay all sums due in respect of such claim and shall indemnify the Contractor in respect thereof and in respect of all claims, proceedings, damages, costs charges and expenses in relation thereto. Provided that if and so far as any such claim or part thereof is, in the opinion of the Engineer, due to any failure on the part of the Contractor to observe and perform his obligations under Sub-Clause 30.1, then the amount, determined by the Engineer, due to any failure on the part of the Contractor to observe and perform his obligations under Sub-Clause 30.1, then the amount, determined by the Engineer, after due consultation with the Employer and the Contractor, to be due to such failure shall be recoverable from the Contractor by the Employer and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly. Provided also that the Employer shall notify the Contractor whenever a settlement is to be negotiated and, where any amount may be due from the Contractor, the Employer shall consult with the Contractor before such settlement is agreed.

30.4 Waterborne Traffic

Where the nature of the Works is such as to require the use by the Contractor of waterborne transport the foregoing provisions of this Clause shall be construed as through "road" included a lock, dock, sea wall or other structure related to a waterway and "vehicle" included craft, and shall have effect accordingly.

31.1 Opportunities for other Contractors

The Contractor shall, in accordance with the requirements of the Engineer, afford all reasonable opportunities for carrying out their work to:

- (a) any other contractors employed by the employer and their workmen,
- (b) the workmen of Employer, and
- (c) the workmen of any duly constituted authorities who may be employed in the execution on or near the Site of any work not included in the Contract or of any contract which the employer may enter into in connection with

or ancillary to the Works.

31.2 Facilities for other Contractors

If, however, pursuant to Sub-Clause 31.1 the Contractor shall, on the written request of the Engineer:

- (a) make available to any such other contractor, or to the Employer or any such authority, any roads or ways for the maintenance of which the Contractor is responsible, or
- (b) permit the use, by any such, of Temporary Works or Contractor's Equipment on the Site,
- (c) provide any other service of whatsoever nature for any such, the Engineer shall determine an addition to the Contract Price in accordance with Clause 52.1 to 52.4 and shall notify the Contractor accordingly.

32.1 Contractor to keep Site Clear

During the execution of the Works the Contractor shall keep the Site reasonably free from all unnecessary obstruction and shall store or dispose of any Contractor's Equipment and surplus materials and clear away and remove from the Site any wreckage, rubbish or Temporary Works no longer required.

33.1 Clearance of Site on Completion

Before the issue of any Taking-Over Certificate the Contractor shall clear away and remove from that part of the Site to which such Taking-Over Certificate relates all Contractor's Equipment, surplus material rubbish and Temporary Works of every kind, and leave such part of the Site and Works clean and in a workmanlike condition to the satisfaction of the Engineer. Provided that the Contractor shall be entitled to retain on Site, until the end of the Defects Liability Period, such materials, Contractor's Equipment and Temporary Works as are required by him for the purpose of fulfilling his obligations during the Defects Liability Period.

34.1 Labour

The contractor shall make his own arrangement for the engagement of all labour local or outside.

The Contractor and his sub contractors shall abide by the local laws and regulations issued by the State Government from time to time applicable to labour

Engagement of Labour

The Contractor shall make his own arrangements for the engagement of all labour, local or otherwise, and, save insofar as the Contract otherwise provides, for the transport, housing, feeding and payment thereof.

Supply of Water

The contractor shall, so far as is reasonably practicable, having regard to local conditions, provide on the Site, to the satisfaction of the Engineer's Representative, an adequate supply of drinking and clear water for the use of the Contractor's and the Engineer's staff and work people, Sub-Contractors and site visitors.

Alcoholic Liquor or Drugs

The Contractor shall not import, sell, give, barter or otherwise dispose of any alcoholic liquor, or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his sub-contractors, agents or employees. And should not allow using /consuming such drugs by any person whether labour or staff of the Contractor in the premises of construction site.

Arms and Ammunition

The Contractor shall not give, barter or otherwise dispose off to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.

Festivals and Religious Customs

The Contractor shall in all dealings with labour in his employment have due regard to all recognised festivals, days of rest and religious or other customs.

Epidemics

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government, or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.

Disorderly Conduct, etc.

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his employees and for the preservation of peace and protection of persons and property in the neighbourhood of the works against the same.

Observance of Legislation etc.

The Contractor shall at all times during the continuance of the Contract comply fully with all existing Acts, regulations and bylaws including all statutory amendments and re-enactments and acts that may be passed in future either by the

state or the Central Government or local authority, including but not limited to the Building & other construction worker (Regulation of Employment condition of service) Act 1996, The Building & other construction worker's Welfare Cess Act 1996 _____, Indian Workmen's Compensation Act, Contract Labour (Regulation and Abolition) Act 1970 and Equal remuneration Act 1976. Factories Act, Minimum Wages Act provident fund regulations employees provident Fund Act and schemes made under same Act, Health and Sanitary Arrangements for workmen, Insurance and other benefits and shall keep the Employer indemnified in case any action is commenced for contravention by the contractor. If the Employer is caused to pay or reimburse any amounts for non-observance of the provisions of this clause on the part of the contractor the Engineer shall have the right to deduct from any moneys due to the contractor or recover from the contractor personally any sum required or estimated to be required for making good the loss or damage suffered by the Employer. All registration and station inspection fees if any in respect of his work pursuant to the contract shall be to the account of the contractor.

Fair Wages :

The Contractor shall pay the labours engaged by him on the work not less than a fair wage, which expression shall mean, whether or time or piecework, the respective rates of wages as fixed by the public works department as fair wages for the area payable to the different categories of labourers or those notified under the Minimum wages act for corresponding employees of the Employer whichever may be higher.

The Contractor shall notwithstanding the provisions of any contract to the contrary, cause to be paid a fair wage to the labourers indirectly engaged on the works including any labour engaged by subcontractors in connection with the said works as if the labourer has been immediately employed by him.

Notices:

The Contractor shall before he commences the work display and correctly maintain in a clean and legible condition at a conspicuous place on the Site notices in English and in a local language spoken by the majority of the workers, stating therein the rate of wages which have been fixed as fair wages and the hours of work for which such wages are earned and send a copy of such notices to the Engineer.

Wage Records:

The contractor shall maintain records of wages and other remuneration paid to his employees in such form as may be convenient and to the requirements of the Employer/Engineer and the conciliation officer (Central) Ministry of Labour, Government of India, or such other authorised person appointed by the Central or State Government and the same shall include the following particulars of each worker:

- i) Name, works number and grade
- ii) Rate of daily or monthly wage.
- iii) Nature of work on which employed
- iv) Total number of days worked during each wage period.
- v) Total amount payable for the work during each wage period.
- vi) All deductions made from the wage with details in each case of the ground for which the deduction is made.
- vii) Wage actually paid for each wage period.

The contractor shall provide a wage slip for each worker employed on the works.

The wage record and wage slips shall be preserved for at least 12 months after the last entry.

Inspection of Wage Records

The Contractor shall allow inspection of the aforesaid wage records and wage slip to the Engineer and to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Employer or any other person authorised by him on his behalf.

The Employer and the Engineer or any other person authorised by them on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the Fair Wages Clause. He shall also have the power to investigate into any complaint regarding any default made by the Contractor or sub-contractor in regard to such provision.

The Employer 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 payment of the aforesaid fair wage, except on account of any deductions that may be permissible under any law for the time being in force.

Representation of Parties

- (i) A workman shall be entitled to be represented in any investigation or enquiry under this Clause by: -
 - (a) An officer of a registered trade union of which he is a member.
 - (b) An officer of a federation of trade Union to which the Trade Union referred to in pervious Sub-clause is affiliated.
 - (c) Where the Worker is not a member of any registered Trade Union, by an officer of a registered Trade Union connected with or by any other workman employed in the industry in which the workers is employed.
- (ii) The contractor or sub-contractor shall be entitled to be represented in any

investigations or enquiry under this clause by an officer of an Association of Employers of which he is a member.

- (iii) No party shall be represented by a legal practitioner in any investigation or enquiry under this clause, unless all parties agree.

Safety Provisions

The Contractor shall comply with all the precautions as required for the safety of the workman by the I.L.O. Convention (No.62) as far as they are applicable to the Contract. The Contractor shall provide all necessary safety appliances, gears like goggles, helmets, masks, etc. to the workmen and the staff.

The Contractor shall be responsible for observance by his sub-Contractors of the foregoing provisions.

Footwear

The Contractor shall at his own expense provide footwear for all labour engaged on concrete mixing work and all other type of work involving the use of tar, cement, etc. to the satisfaction of the Engineer or his Representative, and on his failure to do so the Employer shall be entitled to provide the same and recover the cost from the Contractor.

The Contractor shall deliver to the Engineer's Representative at his office on the Site a return in detail in such form and at such intervals as the Employer / Engineer may prescribe showing the supervisory staff and the numbers of the several classes of labour from time to time employed on the Site.

35.1 Returns of Labour, etc.

The Contractor shall, if required by the Engineer, deliver to the Engineer's Representative, or at his office, a return in detail in such form and at such intervals as the Engineer may prescribe showing the supervisory staff and the number of the several classes of labour from time to time employed by the Contractor on the site and such information respecting constructional plant as the Engineer's Representative may require.

The Contractor shall file all labour returns in detail to the respective authorities / statutory bodies as prescribed under law applicable at the work site and inform the Employer / Engineer with copies of such returns directly filed.

MATERIALS, PLANTS AND WORKMANSHIP

36.1 Quality of Materials, Plant and Workmanship

All materials Plant and workmanship shall be

- (a) of the Respective kinds described in the Contract and in accordance with

the Engineer's instructions, and

- (b) subjected from time to time to such tests as the Engineer may require at the place of manufacture, fabrication or preparation, or on the Site or at such other place or places as may be specified in the Contract, or at all or any of such places.

The Contractor shall provide such assistance, labour, electricity, fuels, stores, apparatus and instruments as are normally required for examining, measuring and testing any materials or plant and shall supply samples of materials, before incorporation in the Works, for testing as may be selected and required by the Engineer.

The contractor is encouraged to the extent practicable and reasonable, to use plant and material from sources within India.

36.2 Cost of Samples

All samples shall be supplied by the Contractor at his own cost if the supply thereof is clearly intended by or provided for in the Contract.

36.3 Cost of Test

The cost of making any test shall be borne by the Contractor if such test is

- (a) clearly intended by or provided for in the Contract, or
- (b) particularised in the Contract (in cases only of a test under load or of a test to ascertain whether the design of any finished or partially finished work is appropriate for the purposes which it was intended to fulfil) in sufficient detail to enable the Contractor to price or allow for the same in his Tender.

36.4 Costs of Tests not provided for

If any test required by the Engineer which is

- (a) not so intended by or provided for, or
- (b) (in the cases above mentioned) not so particularised, or
- (c) though so intended or provided for, required by the Engineer to be carried out at any place other than the Site local test house or the place of manufacture, fabrication or preparation of the materials or Plant tested.

Shows the materials, Plant or workmanship not to be in accordance with the provision of the Contract to the satisfaction of the Engineer, then the cost of such test shall be borne by the Contractor, but in any other case Sub- Clause 36.5 shall apply.

36.5 Engineer's Determination Where Tests not provided for

Where, pursuant to Sub-Clause 36.4, this Sub-Clause applies the Engineer shall, after due consultation with the Contractor, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44.1 to 44.3, and shall notify the Contractor accordingly.

37.1 Inspection of Operations

The Engineer, and any person authorised by him, shall at all reasonable times have access to the Site and to all workshops and places where materials or Plant are being manufactured, fabricated or prepared for the Works and the Contractor shall afford every facility for and every assistance in obtaining the right to such access.

37.2 Inspection and Testing

The Engineer shall be entitled, during manufacture, fabrication or preparation to inspect and test the materials and Plant to be supplied under the Contract. If materials or Plant are being manufactured, fabricated or prepared in workshops or places other than those of the Contractor, the Contractor shall obtain permission for the Engineer to carry out such inspection and testing in those workshops or places. Such inspection or testing shall not release the Contractor from any obligation under the Contract.

37.3 Dates for Inspection and Testing

The Contractor shall agree with the Engineer on the time and place for inspection or testing of any materials or Plant as provided in the Contract. The Engineer shall give the Contractor not less than 24 hours notice of his intention to carry out the inspection or to attend the tests. If the Engineer, or his duly authorised representative, does not attend on the date agreed, the Contractor may, unless otherwise instructed by the Engineer, proceed with the tests, which shall be deemed to have been made in the presence of the Engineer. The Contractor shall forthwith forward to the Engineer duly certified copies of the test readings. If the Engineer has not attended the tests, he shall accept the said readings as accurate or instruct the tests to be repeated at the Employer's cost to enable him to decide.

37.4 Rejection

If at the time and place agreed in accordance with Sub-Clause 37.3, the materials or Plant are not ready for inspection or testing or if, as result of the inspection or testing referred to in this Clause, the Engineer determines that the materials or Plant are defective or otherwise not in accordance with the Contract, he may reject the materials or Plant and shall notify the Contractor thereof immediately. The notice shall state the Engineer's objections with reasons. The Contractor shall

then promptly make good the defect or ensure that rejected materials or Plant comply with the Contract. If the engineer so request, the test of rejected materials or Plant shall be made or repeated under the same terms and conditions. All costs incurred by the Employer by the repetition of the tests shall, after due consultation with the Employer and the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer and may be deducted from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly, with a copy to the Employer.

37.5 Independent Inspection

The Engineer may delegate inspection and testing of materials or Plant to an independent inspector. Any such delegation shall be effected in accordance with Sub- Clause 2.4 and for this purpose such independent inspector shall be considered as an assistant of the Engineer. Notice of such appointment (not being less than 14 days) shall be given by the Engineer to the Contractor.

38.1 Examination of Work before Covering up

No part of the Work shall be covered up or put out of view without the approval of the Engineer and the Contractor shall afford full opportunity for the Engineer to examine and measure any such part of the Works which is about to be covered up or put out of view and to examine foundations before any part of the work is placed thereon. The Contractor shall give notice to the Engineer whenever any such part of the Works or foundations is or are ready or about to be ready for examination and the engineer shall unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such part of the Works or of examining such foundations.

38.2 Uncovering and Making Opening

The Contractor shall uncover any part of the Works or make opening in or through the same as the Engineer may from time to time instruct and shall reinstate and make good such part. If any such part has been covered up or put out of view after compliance with the requirement of Sub-Clause 38.1 and is found to be executed in accordance with the Contract, the Engineer shall, after due consultation with the Contractor, determine the amount of reinstating and making good the same, which shall be added to the Contract Price, and shall notify the Contractor accordingly. In any other case all costs shall be borne by the Contractor.

39.1 Removal of Improper Work, Materials or Plant

The Engineer shall have authority to issue instructions from time to time, for:

- (a) The removal from the Site, within such time or times as may be specified in the instruction, of any materials or Plant which, in the opinion of the Engineer, are not accordance with the Contract,
- (b) The substitution of proper and suitable materials or Plant, and

- (c) The removal and proper re-execution, notwithstanding any previous test thereof or interim payment therefore, of any work which, in respect of
 - (i) materials, Plant or workmanship, or
 - (ii) design by the Contractor or for which he is responsible, is not, in the opinion of the Engineer, in accordance with the Contract.

39.2 Default of Contractor in Compliance

In case of default on the Contractor in carrying out such instruction within the time specified therein or, if none, within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same and all costs consequent thereon or incidental thereto shall, after due consultation with the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly.

SUSPENSION

40.1 Suspension of Work

The Contractor shall, on the instructions of the Engineer, suspend the progress of the Works or any part thereof for such time and in such manner as the Engineer may consider necessary and shall, during such suspension, properly protect and secure the Works or such part thereof so far as is necessary in the opinion of the Engineer. Unless such suspension is

- (a) otherwise provided for in the Contract, or
- (b) necessary by reason of some default of or breach of contract by the Contractor or for which he is responsible, or
- (c) necessary by reason of extra-ordinary climatic conditions on the Site, or
- (d) necessary for the proper execution of the Works or for the safety of the Works or any part thereof (save to the extent that such necessity arises from any act or default by the Engineer or the Employer or from any of the risks defined in Sub-Clause 20.4), Sub- Clause 40.2 shall apply.

40.2 Engineer's Determination following Suspension

Where, pursuant to Sub-Clause 40.1, this Sub- Clause applies the Engineer shall, after due consultation with the Contractor determine

- (a) any extension of time to which the Contractor is entitled under Clause 44.1 to 44.3, and

- (b) the amount, which shall be added to the Contract Price, in respect of the cost incurred by the Contractor by reason of such suspension.

And shall notify the Contractor accordingly.

40.3 Suspension lasting more than 84 Days

If the progress of the Works or any part thereof is suspended on the written instructions of the Engineer and if permission to resume work is not given by the Engineer within a period of 84 days from the date of suspension then, unless such suspension is within paragraph (a), (b), (c) or (d) of Sub-Clause 40.1, the Contractor may give notice to the Engineer requesting permission, within 28 days from the receipt thereof, to proceed with the Works or that part thereof in regard to which progress is suspended. If, within the said time, such permission is not granted, the Contractor may, but is not bound to, elect to treat the suspension, where it affects part only of the Works, as an omission of such part under Clause 51.1 to 51.2 by giving a further notice to the Engineer to that effect, or, where it affects the whole of the Works, treat the suspension as an event of default by the Employer and terminate his employment under the Contract in accordance with the provisions of Sub- Clause 69.1, whereupon the provisions of Sub-Clause 69.2 and 69.3 shall apply.

COMMENCEMENT AND DELAYS

41.1 Commencement of Works

The Contractor shall commence the Works as soon as is reasonably possible after the receipt by him of a notice to this effect from the Engineer, which notice shall be issued within the time stated in the Appendix to Tender after the date of the Letter of Acceptance. Thereafter, the Contractor shall proceed with the works with due expedition and without delay.

42.1 Possession of Site and Access Thereto

Save insofar as the Contract may prescribe:

- (a) the extent of portions of the Site of which the Contractor is to be given possession from time to time, and
- (b) the order in which such portions shall be made available to the Contractor and subject to any requirement in the Contract as to the order in which the Works shall be executed,

The Employer will, with the Engineer's notice to commence the Works, give to the Contractor possession of

- (c) so much of the Site, and
- (d) such access as, in accordance with the Contract, is to be provided by the Employer,

as may be required to enable the Contractor to commence and proceed with the execution of the Works in accordance with the programme referred to in Clause 14.1 to 14.4, if any, and otherwise in accordance with such reasonable proposals as the Contractor shall, by notice to the Engineer make. The Employer will, from time to time as the Works proceed, give to the Contractor possession of such further portions of the Site as may be required to enable the Contractor to proceed with the execution of the Works with due dispatch in accordance with such programme or proposals, as the case may be.

- (e) All water including rain water which may accumulate on the site during the progress of the works or in trenches or excavations, shall be removed promptly from the site to the satisfaction of engineer and at the cost of contractor.

42.2 Failure to Give Possession

If the Contractor suffers delay and/or incurs costs from failure on the part of the Employer to give possession in accordance with the terms of Sub-Clause 42.1, the Engineer shall, on the request of the contractor and submission of the details and documentary proof, determine:

- (a) any extension of time to which the Contractor is entitled under Clause 44.1 to 44.3, and
- (b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly.

42.3 Way leaves and Facilities

The Contractor shall bear all costs and charges for special or temporary way leaves required by him in connection with access to Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by him for the purposes of the Works.

43.1 Time for Completion

The whole of the Works and, if applicable, any Section required to be completed within a particular time as stated in the Appendix to Tender, shall be completed, in accordance with the provisions of Clause 48.1 to 48.4, within the time stated in the Appendix to Tender for completion of the whole of the Works or the Section (as the case may be), calculated from the Commencement Date, or such extended time as may be allowed under Clause 44.1 to 44.3.

44.1 Extension of Time for Completion

In the event of

- (a) the amount or nature of extra or additional work, or
- (b) any cause of delay referred to in these Conditions by reference to clause 44.1 to 44.3, or
- (c) exceptionally adverse climatic conditions, or
- (d) any delay, impediment or any period with in a party shall pursuant to this agreement, complete any action or task shall be extended for a period equal to the time during which such party was unable to perform such action as a result Force Majure
- (e) other special circumstances which may occur, other than through a default of or breach of contract by the Contractor and with the knowledge of the Employer or for which he is responsible,

being such as fairly to entitle the contractor to extension of time for completion of the works or any section or part thereof, the Engineer shall after due consultation with the contractor, and subject to clause 44.2 determine the amount of such extension and shall notify the contractor accordingly.

44.2 Contractor to Provide Notification and Detailed/ Particulars

The Engineer is not bound to make any determination under clause 44.1 unless

the Contractor has

- (a) within 28 days after such event has arisen notified the Engineer, and
- (b) within 28 days, or such other reasonable time as may be agreed by the Engineer, after such notification submitted to the Engineer detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time.

44.3 Interim Determination of Extension

Provided also that where an event has continuing effect such that it is not practicable for the Contractor to submit detailed particulars within the period of 28 days referred to in Sub-Clause 44.2 (a), he shall nevertheless be entitled to an extension of time provided that he has submitted to the Engineer interim particulars at intervals of not more than 28 days and final particulars within 28 days of the end of the effects resulting from the event. On receipt of such interim particulars, the Engineer shall, without undue delay, make an interim determination of extension of time and on receipt of the final particulars the Engineer shall review the circumstances and shall determine an overall extension of time in regard to the event in consultation with the Contractor and shall notify the Contractor of the determination. No final review shall result in a decrease of any extension of time already determined by the Engineer.

45.1 Restriction Working Hours

Subject to any provision to the contrary contained in the Contract, none of the Works shall save as hereinafter provided, be carried on during the night or on locally recognised days of rest without the consent of the Engineer, except when work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer. Provided that the provisions of this Clause shall not be applicable in the case of any work which it is customary to carry out by multiple shift.

46.1 Rate of Progress

If for any reason, which does not entitle the Contractor to an extension of time, the rate of progress of the Works or any Section is at any time, in the opinion of the Engineer, too slow to enable the contractor to complete the execution of and passing the tests on completion of the Works or such section by the time for completion, the Engineer shall so notify the Contractor who shall thereupon take such steps as are necessary, subject to the consent of the Engineer, to expedite progress so as complete the execution of and passing the tests on completion of the Works or such section by the time for completion. The Contractor shall not be entitled to any additional payment for taking such steps. If, as a result of any notice given by the Engineer under this Clause, the Contractor considers that it is necessary to do any work at night or on locally recognised days of rest, he shall be entitled to seek the consent of the Engineer so to do. Provided that if any steps, taken by the Contractor in meeting his obligations under this Clause, involve the employer in additional supervision costs, such costs shall, after due consultation

with the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become to the Contractor and the Engineer shall notify the Contractor accordingly.

47.1 Liquidated Damages for Delay

If the Contractor fails to complete the execution of and passing the test on completion of the works or any section by the time for completion, in accordance with Clause 48.1 to 48.4, and identified stage of work as per clause 44.0 of SCC within the relevant time prescribed by Clause 43.1, then the Contractor shall pay to the Employer the relevant sum stated in the Appendix to Tender (Annexure – D VOL III) as liquidated damages for such default and not as a penalty (which sum shall be the only monies due from the Contractor for such default) for every day or part of a day which shall elapse between the relevant Time for Completion and the date stated in a Taking-Over Certificate of the whole of the Works or the relevant Section, subject to the applicable limit stated in the Appendix to Tender (Annexure – D VOL III). The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under the contract.

47.2 Reduction of Liquidated Damages

If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking-Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The Provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

48.1 Taking-Over Certificate

When the whole of the Works have been substantially completed and have satisfactorily passed any Tests on Completion prescribed by the Contract, the Contractor may give a notice to that effect to the Engineer, accompanied by a written undertaking to finish with due expedition any outstanding work during the Defects Liability Period. Such notice and undertaking shall be deemed to be a request by the Contractor for the Engineer to issue a Taking-Over Certificate in respect of the Works. The Engineer shall, within 21 days of the date of delivery of such notice, either issue to the Contractor, a Taking-Over Certificate, stating the date on which, in his opinion, the Works were substantially completed in accordance with the Contract, or give instructions in writing to the Contractor specifying all the work which in the Engineer's opinion, is required to be done by the Contractor before the issue of such Certificate. The Engineer shall also notify the Contractor of any defects in the Works affecting substantial completion that may appear after such instructions and before completion of the Works specified

therein. The Contractor shall be entitled to receive such Taking-Over Certificate within 21 days of completion, to the satisfaction of the Engineer, of the Works so specified and remedying any defects so notified.

48.2 Taking-Over of Sections or Parts

Similarly, in accordance with the procedure set out in Sub-Clause 48.1, the Contractor may request and the Engineer shall issue a Taking-Over Certificate in respect of :

- (a) any Section in respect of which a separate Time for Completion is provided in the Appendix to Tender, or
- (b) any substantial part of the Permanent Works which has been both completed to the satisfaction of the Engineer and, otherwise than as provided for in the Contract, occupied or used by the Employer, or
- (c) any part of the Permanent Works which the Employer has elected to occupy or use prior to completion (where such prior occupation or use is not provided for in the Contract or has not been agreed by the Contractor as a temporary measure).

48.3 Substantial Completion of Parts

If any part of the Permanent Works has been substantially completed and has satisfactorily passed any Tests on Completion prescribed by the Contract, the engineer may issue a Taking-Over Certificate in respect of that part of the Permanent Works before completion of the whole of the Works and , upon the issue of such Certificate, the Contractor shall be deemed to have undertaken to complete with due expedition any outstanding work in that part of the permanent Works during the Defects Liability Period.

48.4 Surfaces Requiring Reinstatement

Provided that a Taking-Over Certificate given in respect of any Section or part of the Permanent Works before completion of the whole of the Works shall not be deemed to certify completion of any ground or surfaces requiring reinstatement, unless such Taking- Over certificate shall expressly so state.

If the Contractor is prevented from carrying out the Tests on Completion by a cause for which the employer or the Engineer or other contractors employed by the Employer are responsible, the employer shall subject to clause 7.2 (b) be deemed to have taken over the Works on the date when the Tests on Completion would have been completed but for such prevention. The Engineer shall issue a Taking-Over Certificate accordingly. Provided always that the Works shall not be deemed to have be taken over if they are not substantially in accordance with the Contract.

If the Works are taken over under this Sub-Clause the Contractor shall

nevertheless carry out the Tests on Completion during the Defects Liability Period. The Engineer shall require the Tests to be carried out by giving 14 days notice.

Any additional costs to which the Contractor may be put, in making the Tests on Completion during the Defects Liability Period, shall be added to the Contract Price.

DEFECTS LIABILITY

49.1 Defects Liability Period

In these Conditions the expression "Defects Liability Period" shall mean the defects liability period named in the Appendix to Tender, calculated from:

- (a) the date of completion of the Works certified by the Engineer in accordance with Clause 48.1 to 48.4 or clause 63.1; or
- (b) in the event of more than one certificate having been issued by the Engineer under Clause 48.1 to 48.4, the respective dates so certified.

49.2 Completion of Outstanding Work and Remedying Defects

To the intent that the Works shall, at or as soon as practicable after the expiration of the Defects Liability Period, be delivered to the Employer in the condition required by the Contract, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall:

- (a) complete the work, if any, outstanding on the date stated in Taking-Over Certificate as soon as practicable after such date and
- (b) execute all such work of amendment, reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, during the Defects Liability Period or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to its expiration, instruct the Contractor to execute.

49.3 Cost of Remedying Defects

All work referred to in Sub-Clause 49.2 (b) shall be executed by the Contractor at his own cost if the necessity thereof is, in the opinion of the engineer, due to:

- (a) the use of materials, Plant or workmanship not in accordance with the Contract, or
- (b) where the Contractor is responsible for the design of part of the Permanent Works, any fault in such design, or
- (c) the neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the

Contract.

If, in the opinion of the Engineer, such necessity is due to any other cause, he shall determine an addition to the Contract Price in accordance with Clause 52.1 to 52.4 and shall notify the Contractor accordingly, with a copy to the Consultant.

49.4 Contractor's Failure to Carry out Instructions

In case of default on the part of the Contractor in carrying out such instruction within a reasonable time, the Consultant shall be entitled to employ and pay other persons to carry out the same and if such work, in the opinion of the Engineer, the Contractor was liable to do at his own cost under the Contract, then all costs consequent thereon or incidental thereto shall, after due consultation with the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Employer, and may be deducted by the Employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly.

The Provisions of this Clause shall apply to all replacements or renewals of Plant carried out by the Contractor to remedy defects and damages as if the replacements and renewals had been taken over on the date they were completed.

The Defects Liability Period for the Works shall be extended by a period equal to the period during which the Works cannot be used by reason of a defect or damage. If only part of the Works is affected the Defects Liability Period shall be extended only for that part. In neither case shall the Defects Liability Period extend beyond 2 years from the date of taking over.

When the progress in respect of Plant has been suspended under clause 40.1 to 40.3, the Contractor's obligations under this Clause shall not apply to any defects occurring more than one year after the Time for Completion established on the date of the Letter of Acceptance.

50.1 Contractor to Search

If any defects, shrinkage or other fault in the Works appears at any time prior to the end of the Defects Liability Period, the Engineer may instruct the Contractor, to search under the directions of the Engineer for the cause thereof. Unless such defect, shrinkage or other fault is one for which the Contractor is liable under the Contract, the Engineer shall, after due consultation with the Contractor, determine the amount in respect of the costs of such search incurred by the Contractor, which shall be added to the Contract Price and shall notify the Contractor accordingly. If such defect, shrinkage or other fault is one for which the Contractor is liable, the cost of the work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case remedy such defect, shrinkage or other fault at his own cost in accordance with the provisions of Clause 49.1 to 49.4.

ALTERATIONS, ADDITIONS AND OMISSIONS

51.1 Variations

The Engineer shall make any variation of the form, or quantity of the Works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion, be appropriate, he shall have the authority to instruct the Contractor to do and the Contractor to do and the Contractor shall do any of the following:

- (a) increase or decrease the quantity of any work included in the Contract,
- (b) change the character or quality or kind of any such work.
- (c) change the levels, lines, position and dimensions of any part of the Works,
- (d) execute additional work of any kind necessary for the completion of the Works
- (e) change any specified sequence or timing of construction of any part of the Works.

No such variation shall in any way vitiate or invalidate the Contract, but the effect, if any, of all such variations shall be valued in accordance with Clause 51.2 to 52.4. Provided that where the issue of an instruction to vary the Works is necessitated by some default of or breach of contract by the contractor or for which he is responsible, any additional cost attributable to such default shall be borne by the contractor.

51.2 Instructions for Variations

The Contractor shall not make any such variation without an instruction of the Engineer. Provided that no instruction shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an instruction given under this Clause, but is the result of the quantities exceeding or being less than those stated in the Bill of Quantities as per approved drawings issued for construction.

52.1 Valuation of Variations

All variations referred to in Clause 51.1 to 51.2 and any additions to the Contract Price which are required to be determined in accordance with Clause 52.1 to 52.4 (for the purposes of this Clause referred to as "varied works"), shall be valued at the rates and prices set out in the Contract if, in the opinion of the Engineer, the same shall be applicable. If the contract does not contain any rates or prices applicable to the varied work, the rates and prices in the Contract shall be used as the basis for valuation so far as may be reasonable, failing which, after due consultation by the Engineer with the Contractor, suitable rates or prices shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such rates or prices as are, in his opinion, appropriate based on CPWD norms and shall notify the Contractor accordingly. Until such time as rates or prices are agreed or fixed, the Engineer shall determine

provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with Clause 60.1 to 60.14.

52.2 Power of Engineer to Fix Rates

Provided that if the nature or amount of any varied work relative to the nature or amount of the whole of the Works or to any part thereof, is such that, in the opinion of the Engineer, the rate or price contained in the Contract for any item of the Works is, by reason of such varied work, rendered inappropriate or inapplicable, then after due consultation by the Engineer with the Contractor, a suitable rate or price shall be agreed upon between the Engineer and the Contractor. In the event of disagreement the Engineer shall fix such other rate or price as is, in his opinion, appropriate and shall notify the Contractor accordingly. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on-account payments to be included in certificates issued in accordance with Clause 60.1 to 60.14.

The quoted rates for all the items shall be firm, fixed and binding on the contractor irrespective of any variation of quantities stated in the contract upto $\pm 25\%$ variation of the contract value as a whole. In case the contract value varies beyond $\pm 25\%$, the item rates of only those items whose individual quantities vary beyond $\pm 20\%$ of the quantities mentioned in the contract shall be considered for change in rates. The rates of such items shall be worked out on the basis of market rate analysis and only applicable to the quantities beyond $\pm 20\%$. In the event of disagreement between the Engineer and the Contractor on these rates, the Engineer shall fix such rates and prices as are in his opinion appropriate and shall notify the Contractor accordingly. Provided also that no varied work instructed to be done by the Engineer pursuant to Clause 51.1 to 51.2 shall be valued under Sub-Clause 52.1, or under this Sub-Clause unless, within 14 days of the date of such instruction and, other than in the case of omitted work, before the commencement of the varied work, notice shall have been given either:

- (a) by the Contractor to the Engineer of his intention to claim extra payment or a varied rate or price, or
- (b) by the Engineer to the Contractor of his intention to vary a rate or price.

52.3 Variations Exceeding 25 percent

If, on the issue of the Taking-Over Certificate for the whole of the Works, it is found that as a result of:

- (a) all varied work valued under Sub-Clause 52.1 and 52.2, and
- (b) all adjustments upon measurement of the estimated quantities set out in the Bill of Quantities, excluding Provisional Sums, dayworks and adjustments of price made under Clause 70.1 to 70.3,

but not from any other cause, there have been additions to or deductions from the Contract Price which taken together are in excess of 25 percent of the "Effective Contract Price" (which for the purposes of this

Sub-Clause shall mean the Contract Price, excluding Provisional Sums and allowance for day works, if any) then and in such event (subject to any action already taken under any other Sub-Clause of this Clause), after due consultation by the Engineer with the Employer and the Contractor, there shall be added to or deducted from the Contract Price such further sum as may be agreed between the Contractor and the Engineer or, failing agreement, determined by the Engineer as being fair and reasonable having regard to the Contractor's Site and general overhead costs of the Contract. The Engineer shall notify the Contractor of any determination made under this Sub-Clause. Such sum shall be based only on the amount by which such additions or deductions shall be in excess of 25 per cent of the Effective Contract Price.

52.4 Daywork

The Engineer may, if in his opinion it is necessary or desirable, issue an instruction that any varied work shall be executed on a daywork basis. The Contractor shall then be paid for such varied work under the terms set out in the daywork schedule included in the Contract and at the rates and prices affixed thereto by him in the Tender.

The Contractor shall furnish to the Engineer such receipts or other vouchers as may be necessary to prove the amounts paid and, before ordering materials, shall submit to the Engineer quotations for the same for his approval.

In respect of such of the Works executed on a daywork basis, the Contractor shall, during the continuance of such work, deliver each day to the Engineer an exact list in duplicate of the names, occupation and time of all workmen employed on such work and a statement, also in duplicate, showing the description and quantity of all materials and Contractor's Equipment used thereon or thereof other than Contractor's Equipment which is included in the percentage addition in accordance with such day work schedule. One copy of each list and statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor.

At the end of each month the Contractor shall deliver to the Engineer a priced statement of the labour, materials and Contractor's Equipment, except as aforesaid, used and the Contractor shall not be entitled to any payment unless such lists and statements have been fully and punctually rendered. Provided always that if the Engineer considers that for any reason the sending of such lists or statements by the Contractor, in accordance with the foregoing provision, was impracticable he shall nevertheless be entitled to authorise payment for such work, either as daywork, or being satisfied as to the time employed and the labour, materials and Contractor's Equipment used on such work, or at such value there for as shall, in his opinion, be fair and reasonable.

PROCEDURE FOR CLAIMS

53.1 Notice of Claims

Notwithstanding any other provision of the Contract, if the Contractor intends to claim any additional payment pursuant to any clause of these Conditions or otherwise, he shall give notice of his intention to the Engineer, within 28 days after the event giving rise to the claim has first arisen.

53.2 Contemporary Records

Upon the happening of the event referred to in Sub-Clause 53.1, the Contractor shall keep such contemporary records as may reasonable be necessary to support any claim he may subsequently wish to make. Without necessarily admitting the Employer's liability, the Engineer shall, on receipt of a notice under Sub-Clause 53.1, inspect such contemporary records and may instruct the Contractor to keep any further contemporary records as are reasonable and may be material to the claim of which notice has been given. The Contractor shall permit the Engineer to inspect all records kept pursuant to this Sub-Clause and shall supply him with copies thereof as and when the Engineer so instructs.

53.3 Substantiation of Claims

Within 28 days, or such other reasonable time as may be agreed by the Engineer, of giving notice under Sub-Clause 53.1, the Contractor shall send to the Engineer an account giving detailed particulars of the amount claimed and the grounds upon which the claim is based. Where the event giving rise to the claim has a continuing effect, such account shall be considered to be an interim account and the Contractor shall, at such intervals as the Engineer may reasonable require, send further interim accounts giving the accumulated amount of the claim and any further grounds upon which it is based. In cases where interim accounts are sent to the Engineer, the Contractor shall send a final account within 28 days of the end of the effect resulting from the event. The Contractor shall, if required by the Engineer so to do, copy to the Employer all accounts sent to the Engineer pursuant to this Sub- Clause.

53.4 Failure to Comply

If the Contractor fails to comply with any of the provisions of this Clause in respect of any claim which he seeks to make, his entitlement to payment in respect thereof shall not exceed such amount as the Engineer or any arbitrator or arbitrators appointed pursuant to Sub-Clause 67.3 assessing the claim considers to be verified by contemporary records (whether or not such records were brought to the Engineer's notice as required under Sub-Clause 53.2 and 53.3).

53.5 Payment of Claims

The Contractor shall be entitled to have included in any interim payment certified by the Engineer pursuant to Clause 60.1 to 60.14 such amount in respect of any claim as the Engineer, after due consultation with the Contractor, may consider due to the Contractor provide that the Contractor has supplied sufficient particulars to enable the Engineer to determine the amount due. If such particulars are insufficient particulars to substantiate the whole of the claim, the Contractor shall be entitled to payment in respect of such part of the claim as such particulars may substantiate to the satisfaction of the Engineer. The Engineer shall notify the Contractor for any determination made under this Sub-Clause.

CONTRACTOR'S EQUIPMENT, TEMPORARY WORKS AND MATERIALS

54.1 Contractor's Equipment, Temporary Works and Materials, Exclusive use for the Works

All Contractor's Equipment Temporary Works and materials by the Contractor shall when brought on to the site, be deemed to be exclusively intended for the execution of the works and the contractor shall not remove the same or any part thereof, except for the purpose of moving it from one part of the Site to another, without the consent of the Engineer. provided that consent shall not be required for vehicles engaged in transporting any staff labour, contractor's equipment, temporary works, plant or materials to or from the site.

54.2 Employer Not Liable for Damage

The Employer shall not at any time be liable, save as mentioned in Clauses 20.1 to 20.4 and 65.1 to 65.8, for the loss of or damage to any of the said Contractor's Equipment, Temporary Works or materials.

54.3 Customs Clearance

The Employer will use his best endeavours in assisting the Contractor, where required, in obtaining clearance through the Customs of Contractor's Equipment, materials and other things required for the Works.

54.4 Re-export of Contractor's Equipment

In respect of any Contractor's Equipment which the Contractor has imported for the purposes of the Works, the Employer will use his best endeavours to assist the Contractor, where required, in procuring any necessary Government consent to the re-export of such Contractor's Equipment by the Contractor upon the removal thereof pursuant to the terms of the Contract.

54.5 Conditions of Hire Contractor's Equipment

With a view to securing, in the event of termination under Clause 63.1 to 63.4, the continued availability, for the purpose of executing the Works, of any hired Contractor's Equipment, the Contractor shall not bring on to the Site any hired Contractor's Equipment unless there is an agreement for the hire thereof (which agreement shall be deemed not to include an agreement for hire purchase) which contains a provision that the owner thereof will, on request in writing made by the Employer within 7 days after the date on which any termination has become effective, and on the Employer undertaking to pay all hire charges in respect thereof from such date, hire such Contractor's Equipment to the Employer on the same terms in all respects as the same was hired to the Contractor save that the Employer shall be entitled to permit the use thereof by any other contractor employed by him for the purpose of execution and completion of the Works and remedying any defects therein, under the terms of the said Clause 63.1 to 63.4 .

54.6 Costs for the Purpose of Clause - 63.1 to 63.4

In the event of the employer entering into any agreement for the hire of contractor's equipment pursuant to Sub-Clause 54.5, all sums properly paid by the employer under the provisions of any such agreement and all costs incurred by him (Including stamps duties) in entering into such agreement shall be deemed, for the purpose of clause 63.1 to 63.4, to be part of the cost of executing and completing the works and the remedying of any defects therein.

54.7 Corporation of Clause in Sub-contracts

The contractor shall, where entering into any subcontract for execution of any part of the works, incorporate in such subcontract (by reference or otherwise) the provisions of this Clause in relation to Contractor's Equipment, Temporary Works or Materials brought on to the Site by the Subcontractor.

54.8 Approval of Material not Implied

The operation of this clause shall not be deemed to imply any approval by the engineer of the materials or other matters referred to therein nor shall it prevent the rejection of any materials at any time by the Engineer.

MEASUREMENT

55.1 Quantities

The quantities set out in the Bill of Quantities are the estimated quantities for the Works, and they are not to be taken as the actual and correct quantities of the Works to be executed by the Contractor in fulfilment of his obligations under the Contract.

56.1 Works to be Measured

The Engineer shall, except as otherwise stated, ascertain and determine by measurement the value of the works in accordance with the Contract and the Contractor shall be paid that value in accordance with clause 60.1 to 60.14. The Engineer shall, when he requires any part of the Works to be measured, give reasonable notice to the Contractor's agent, who shall:

- (a) forthwith attend or send a qualified representative to assist the Engineer in making such measurement, and
- (b) supply all particulars required by the Engineer
Should the Contractor not attend, or neglect or omit to send such representative, then the measurement made by the Engineer or approved by him shall be taken to be the correct measurement of such part of the Works. For the purpose of measuring such Permanent Works as are to be measured by records and drawings, the Engineer shall prepare records and drawings as the work proceeds and the Contractor, as and when called upon to do so in writing, shall, within 14 days, attend to examine and agree such records and drawings with the Engineer and shall sign the same when so agreed. If the Contractor does not attend to examine such records and drawings and the Contractor does not agree such records and drawings, they shall be taken to be Correct. If, after examination of such records and drawings, the Contractor does not agree the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the Contractor, within 14 days of such examination, lodges with the Engineer notice of the respects in which such records and drawings are claimed by him to be incorrect. On receipt of such notice, the Engineer shall review the records and drawings and either confirm or vary them.

57.1 Method of Measurement

The Works shall be measured net, notwithstanding any general or local custom, except where otherwise provided for in the Contract.

57.2 Breakdown of Lumpsum Items

For the purposes of statements submitted in accordance with Sub-Clause 60.1, the Contractor shall submit to the Engineer, within 28 days after the receipt of the Letter of Acceptance, a breakdown for each of the lump sum items contained in the Tender. Such breakdowns shall subject to the approval of the Engineer.

PROVISIONAL SUMS

58.1 Definition of "Provisional Sum"

"Provisional Sums" means a sum included in the Contract and so designated in the Bill of Quantities for the execution of any part of the Works or for the supply of goods, materials, Plant or services, or for contingencies, which sum may be

used, in whole or in part, or not at all, on the instruction of the Engineer. The Contractor shall be entitled to only such amounts in respect of the work, supply or contingencies to which such Provisional Sums relate as the Engineer shall determine in accordance with the Clause. The Engineer shall notify the Contractor of any determination made under this Sub-clause.

58.2 Use of Provisional Sums

In respect of every Provisional Sum the Engineer shall have authority to issue instructions for the execution of works or for the supply of goods, materials, Plant or services by:

- (a) the Contractor, in which case the Contractor shall be entitled to an amount equal to the value thereof determined in accordance with Clause 52.1 to 52.4.
- (b) a nominated Subcontractor, as hereinafter defined, in which case the sum to be paid to the Contractor therefore shall be determined and paid in accordance with Sub-Clause 59.4

58.3 Production of Vouchers

The Contractor shall produce to the Engineer all quotations, invoices, vouchers and accounts or receipts in connection with expenditure in respect of Provisional Sums, except where work is valued in accordance with rates or prices set out in the Tender.

NOMINATED SUBCONTRACTORS

59.1 Definition of "Nominated Subcontractors"

All specialists, merchants, tradesmen and others executing any work or supplying any goods, materials, Plant or services for which Provisional Sums are included in the Contract, who may have been or be nominated or selected or approved by the Engineer, and all persons to whom by virtue of the provisions of the Contract the Contractor is required to subcontract shall, in the execution of such work or the supply of such goods, materials, Plant or services, be deemed to be subcontractors to the Contractor and are referred to in the Contract as "nominated Subcontractors".

59.2 Nominated Subcontractors; Objection to Nomination

The Contractor shall not be required by the Employer or the Engineer, or be deemed to be under any obligation, to employ any nominated Subcontractor against whom the Contractor may raise reasonable objection, or who declines to enter into a subcontract with the Contractor containing provision:

- (a) that in respect of work, goods, materials, Plant or services the subject of the subcontract, the nominated Subcontractor will undertake towards the Contractor such obligations and liabilities as will enable the Contractor to discharge his own obligations and liabilities towards the Employer under the terms of the Contract and will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection therewith, or arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities; and
- (b) that the nominated Subcontractor will save harmless and indemnify the Contractor from and against any negligence by the nominated Subcontractor, his agents, workmen and servants and from and against any misuse by him or them of any Temporary Works provided by the Contractor for the Purpose of the Contract and from all claims as aforesaid; and
- (c) approved by the Engineer.

59.3 Design Requirements to be Expressly Stated

If in connection with any Provisional Sums the services to be provided include any matter of design or specification of any part of the Permanent Works or of any Plant to be incorporated therein, such requirement shall be expressly stated in the Contract and shall be included in any nominated Subcontract. The nominated Subcontract shall specify that the nominated Subcontractor providing such services will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities.

59.4 Payments to Nominated Subcontractors

For all work executed or goods, material, Plant or services supplied by any nominated Subcontractor, the contractor shall be entitled to :

- (a) the actual price paid or due to be paid by the Contractor, on the instructions of the Engineer, and in accordance with the Subcontract;
- (b) in respect of labour supplied by the Contractor, the sum if any, entered in the Bill of Quantities or, if instructed by the Engineer pursuant to paragraph (a) of Sub-clause 58.2, as may be determined in accordance with Clause 52.1 to 52.4;
- (c) in respect of all other charges and profit, a sum being a percentage rate of the actual price paid or due to be paid calculated, where provisions has been made in the Bill of Qualities for a rate to be set against the relevant Provisional Sum, at the rate inserted by the Contractor against that item or, where no such provision has been made, at the rate inserted by the Contractor in the Appendix to Tender and repeated where provision for

such is made in a special item provided in the Bill of Quantities for such purpose.

59.5 Certificates of Payments to Nominated Subcontractors

Before issuing, under Clause 60.1 to 60.14, any certificate, which includes any payment in respect of work done or goods, materials, Plants or services supplied by any nominated Subcontractor, the Engineer shall be entitled to demand from the Contractor reasonable proof that all payments, less retentions, included in previous certificates in respect of the work or goods, materials, Plant or services of such nominated Subcontractor have been paid or discharged by the Contractor. If the Contractor fails to supply such proof then, unless the Contractor :

- (a) satisfies the Engineer in writing that he has reasonable cause for withholding or refusing to make such payments and
- (b) produces to the Engineer reasonable proof that he has so informed such nominated Subcontractor in writing,

the Employer shall be entitled to pay to such nominated Subcontractor direct, upon the certificate of the Engineer, all payments, less retentions, provided for in the nominated Subcontractor and to deduct by way of set-off the amount so paid by the Employer from any sums due or to become due from the Employer to the Contractor.

Provided that, where the Engineer has certified and the Employer has paid direct as aforesaid, the Engineer shall, in issuing any further certificate in favour of the Contractor, deduct from the amount so paid, direct as aforesaid, but shall not withhold or delay the issue of the certificate itself when due to be issued under the terms of the Contract.

CERTIFICATES AND PAYMENTS

60.1 Monthly Statements

The Contractor shall submit a statement in 3 copies for (i)Academic Block (ii)Library Block (iii)OPD (iv)Nursing college (v)Guest House etc., in the name of Employer to the Engineer by 7th day of each month for the work executed upto the end of previous month in a tabulated form approved by the Engineer, showing the amounts to which the Contractor considers himself to be entitled. the statement shall include the following items, as applicable, which shall be taken into account in the sequence listed:

- (a) The estimated contract value of the Temporary and Permanent Works executed up to the end of the month in question, at base unit rates and prices.

- (b) The actual value certified for payment for the Temporary and Permanent Works executed up to the end of the previous month, at base unit rates and prices.
- (c) The estimated contract value at base unit rates and prices of the Temporary and Permanent Works for the month in question, obtained by deducting (b) from (a);
- (d) The value of any variations executed up to the end of the month in question, less the amount certified in the previous Interim Payment Certificate, pursuant to Clause 52.1 to 52.4;
- (e) Amounts approved in respect of Daywork executed up to the end of the month in question, less the amount for Daywork certified in the previous Interim Payment Certificate determined from the Day work Schedule of the Bill of Quantities.
- (f) Amounts reflecting changes in cost and legislation, pursuant to Clause 70.1 to 70.3.
- (g) Any credit or debit for the month in question in respect of materials and Plant for the Permanent Works, under the conditions set forth in Sub-Clause 60.3;
- (h) Any amount to be withheld under the retention provisions of Sub-Clause 60.5, determined by applying the percentage set forth in Sub-Clause 60.5 to the amounts due under paragraphs 60.1(c), (e), (f) and (g);
- (i) Any amounts to be deducted as repayment of the Advance under the provisions of sub-Clause 60.7; and
- (j) Any other sum, to which the Contractor may be entitled under the contract.
- (k) 75% of the value of materials delivered to the site for permanent works on signing of the Indenture for secured advance format of which is enclosed at Annexure - A.
- (l) The amount to be deducted towards the advance income tax and the advance works contract tax shall be as per the statutory requirements in this regard.

60.2 Monthly Payments

The said statement shall be approved / amended by the Engineer in such a way that, in his opinion, it reflects the amounts due to the Contractor in accordance with the Contract, after deduction, other than pursuant to Clause 47.1 to 47.2, of any sums which may have become due and payable by the Contractor to the Employer. In cases where there is a difference of opinion as to the value of any item, the Engineer's view shall prevail. Within the 7th day of the month following

the receipt of the monthly statement referred to in Sub-Clause 60.1, the Engineer shall determine the amounts due to the Contractor and shall issue to the Contractor a certificate herein called "Interim Payment Certificate", certifying the amounts due to the contractor.

Notwithstanding the terms of this Clause or any other Clause of the Contract, no amount will be certified by the Engineer for payment until the performance security has been provided by the Contractor and approved by the Consultant.

60.3 Materials and Plant for the Permanent Works

With respect to materials and Plant brought by the Contractor to the Site for incorporation in the Permanent Works, the Contractor shall (i) receive a credit in the month in which these materials and Plant are brought to the site and (ii) be charged a debit in the month in which they are incorporated in the Permanent Works, both such credit and debit to be determined by the engineer in accordance with the following provisions:

- (a) no credit shall be given unless the following conditions shall have been met to the Engineer's satisfaction:
 - i) the materials and Plant are in accordance with specifications for the Works;
 - ii) the materials and Plant have been delivered to the Site and are properly stored and protected against loss, damage or deterioration;
 - iii) the Contractor's records of the requirements, order, receipts and use of materials and Plant are kept in a form approved by the engineer, and such records are available for inspection by the Engineer.
 - iv) the Contractor has submitted a statement of his cost of acquiring and delivering the materials and Plant to the site, together with such documents as may be required for the purpose of evidencing such cost; and
- (b) the amount to be credited to the Contractor shall be equivalent of 75 percent of the Contractor's reasonable cost of the materials and Plant delivered to the Site, as determined by the Engineer after review of the documents listed in paragraph (a) (iv) above, as determined by the Engineer;
- (c) the amount to be debited to the Contractor for any materials and Plant incorporated into the Permanent Works shall be equivalent to the credit previously granted to the contractor for such materials and Plant pursuant to Sub-Clause(b) above, as determined by the Engineer.

60.4 Place of Payments

Payments to the Contractor by the Consultant shall be made in Indian Rupees into a bank account or accounts nominated by the Contractor or by account payee cheque.

60.5 Retention Money

A retention amounting to 10 (Ten) percent of the amounts, determined in accordance with the procedure set out in Sub-Clause 60.1 (h) shall be made by the Engineer in the first and following Interim Payment Certificates, until the amount so retained reaches a limit of retention money (5% of Contract Price) as stated in the Appendix to Tender (Annexure – D – Volume III).

60.6 Payment of Retention Money

- (a) Upon the issue of the Taking-Over Certificate with respect to the whole of the Works, one half of the Retention Money, or upon the issue of a Taking-Over Certificate with respect to a Section or part of the Permanent Works only such proportion thereof as the Engineer determines having regard to the relative value of such Section or part of the Permanent Works, shall be certified by the Engineer for payment to the Contractor.
- (b) upon the expiration of the Defects Liability Period for the Works the other half of the Retention Money shall be certified by the Engineer for payment to the Contractor. Provided that, in the event of different Defects Liability Periods having become applicable to different Sections or parts of the Permanent Works pursuant to Clause 48.1 to 48.4, the expression "expiration of the Defects Liability period" shall, for the purposes of this Sub-Clause, be deemed to mean the expiration of the latest of such periods. Provided also that if at such time, there shall remain to be executed by the Contractor any work ordered, pursuant to Clauses 49.1 to 49.4. and 50.1, in respect of the Works, the Engineer shall be entitled to withhold certification until completion of such work of so much of the balance of the Retention Money as shall, in the opinion of the Engineer, represent the cost of the work remaining to be executed.

60.7 Advance Payment

- a. The Consultant/Employer will make an advance payment at an interest @ 10 (Ten) Percent to the Contractor exclusively for the costs of mobilization in respect of the works in an amount equivalent to 5 (Five) percent of the contract price named in the Letter of Acceptance. Payment of such advance amount will be due under separate certification by the Engineer after (i) execution of the Form of Agreement by the Parties hereto; (ii) provision by the Contractor of the performance security in accordance with sub-clause 10.1; and (iii) provision by the Contractor of an unconditional bank guarantee in a form and by a bank acceptable to the consultant in amounts equal to the advance payment. Such bank guarantee shall remain effective until the advance payment has been repaid pursuant paragraph (b) below, but the amount thereof shall be

progressively reduced by the amount repaid by the Contractor as indicated in Interim Payment Certificates issued in accordance with this Clause.

- b. The mobilization advance payment shall be repaid through percentage deductions from the interim payments certified by the Engineer in accordance with this Clause. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all interim payments certified to the Contractor has reached 20 (Twenty) percent of the Contract Price less Provisional sums, and shall be made at the rate of 10 (Ten) percent of the amount of all Interim Payment Certificates in proportionate amounts of advance payment until such time as the advance payment has been fully repaid, always provided that the advance payment shall be completely repaid prior to the time when 70 percent of the contract price has been certified for payment.
- c. The recovery of interest on mobilization advance payment shall start from the first interim payment certificate itself and thereafter from every payment certificate until the total interest has been fully recovered.

60.8 Time of Payment

The amount due to the Contractor under any Interim Payment Certificate issued by the Engineer pursuant to this Clause, or to any other term of the Contract, shall, subject to Clause 47.1 to 47.2, be paid by the Employer to the Contractor within 30 days after the Contractor's monthly statement has been submitted to the Engineer for certification or, in the case of the Final Certificate pursuant to Sub-Clause 60.13, within 120 days after the agreed Final Statement and written discharge have been submitted to the Engineer for certification.

60.9 Correction of Certificates

The Engineer may by any Interim Payment Certificate make any correction or modification in any previous Interim payment Certificate which has been issued by him, and shall have authority, if any work is not being carried out to his satisfaction, to omit or reduce the value of such work in any Interim Payment Certificate.

60.10 Statement of Completion

Not later than 84 days after the issue of the Taking-Over Certificate in respect of the whole of the Works, the Contractor shall submit to the Engineer a Statement of Completion with supporting documents showing in detail, in the form approved by the Engineer.

- (a) the final value of all work done in accordance with the Contract up to the date stated in such Taking-Over Certificate;
- (b) any further sums which the Contractor considers to be due; and
- (c) an estimate of amounts which the Contractor considers will become due to him under the Contract.

Estimated amounts shall be shown separately in such Statement at Completion. The Engineer shall certify payment in accordance with Sub-Clause 60.2 as if the statement of completion were a statement submitted by the contractor under clause 60.1.

60.11 Final Statement

Not later than 56 days after the issue of the Defects Liability Certificate pursuant to Sub-Clause 62.1, the Contractor shall submit to the Engineer for consideration a draft final statement with supporting documents showing in detail, in the form approved by the Engineer.

- (a) the value of all work done in accordance with the Contract; and
- (b) any further sums which the Contractor considers to be due to him under the Contract.

If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed (for the purposes of these Conditions referred to as the "Final Statement").

If, following discussions between the Engineer and the Contractor and any changes to the draft final statement which may be agreed between them, it becomes evident that a dispute exists, the engineer shall issue an Interim Payment Certificate for those parts of the draft final statement which are not in dispute. The dispute shall then be settled in accordance with Clause 67.1 to 67.4. The Final Statement shall be agreed upon settlement of the dispute.

60.12 Discharge

Upon submission of the Final Statement, the Contractor shall give to the Employer, with a copy to the Engineer, a written discharge confirming that the total of the Final Statement represents full and final settlement of all monies due to the Contractor arising out of or in respect of the contract. Provided that such discharge shall become effective only after payment due under the Final Certificate issued pursuant to Sub-Clause 60.13 has been made and the performance security referred to in Sub- Clause 10.1 has been returned to the Contractor.

60.13 Final Certificate

Within 28 days after receipt of the Final Statement, and the written discharge, the Engineer shall issue to the employer (with a copy to the Contractor) a Final Certificate stating:

- (a) the amount which, in the opinion of the Engineer, is finally due under the Contract, and
- (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled under the Contract, other than Clause 47.1 to 47.2, the balance, if any, due from the Employer to the Contractor or from the Contractor to the Employer as the case may be.

60.14 Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter or thing arising out of or in connection with the Contract or execution of the Works, unless the Contractor shall have included a claim in respect thereof in his Final Statement and (except in respect of matters of things arising after the issue of the Taking-Over Certificate in respect of the whole of the Works) in the Statement at Completion referred to in Sub- Clause 60.10.

61.1 Defects Liability Certificate

The Contract shall not be considered as completed until a Defects Liability Certificate shall have been signed by the Engineer and delivered to the Employer, with a copy to the Contractor, stating the date on which the Contractor shall have completed his obligations to execute and complete Works and remedy any defects therein to the Engineer's satisfaction. The Defects Liability Certificate shall be given by the Engineer within 28 days after the expiration of the Defects Liability Period, or, if different defects liability periods shall become applicable to different sections or part of the Permanent Works, the expiration of the latest such period, or as soon thereafter as any works instructed, pursuant to Clause 49.1 to 49.4 and 50.1, have been completed to the satisfaction of the Engineer. Provided that the issue of the Defects Liability Certificate shall not be condition precedent to payment to the Contractor of the second portion of the Retention Money in accordance with the conditions set out in Sub-Clause 60.3.

62.1 Unfulfilled Obligations

Notwithstanding the issue of the Defects Liability Certificate the Contractor and the Employer shall remain liable for the fulfilment of any obligation incurred under the provisions of the Contract prior to the issue of the Defects Liability Certificate which remains unperformed at the time such Defects Liability Certificate is issued and, for the purpose of determining the nature and extent of any such obligation, the Contract shall be deemed to remain in force between the parties to the Contract.

REMEDIES

63.1 Default of Contractor

If the Contractor is deemed by law unable to pay his debts as they fall due, or enters in to voluntary or involuntary bankrupt, liquidation or dissolution (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or become insolvent, or makes an arrangement with, or assignment in favour of, his creditors or agrees to carry out the Contract under a committee of inspection of his creditors, or if a receiver, administrator, trustee or liquidator is appointed over any substantial part of his assets, or if, under any law or regulation relating to reorganisation, arrangement or readjustment of debts proceedings are, commenced against the Contractor or resolution passed in connection with dissolution or liquidation or, if any, step are taken to enforce any security interest over a substantial part of the assets of the Contractor, or if, any act is done or event occurs with respect to the Contractor or his assets which under any applicable law has a substantially similar effect to any of the foregoing acts or events, or if the Contractor has contravened Sub_-Clause 3.1, or has an execution levied on his goods, or if the Engineer certifies to the Employer, with a copy to the Contractor, that, in his opinion the contractor

- (a) has repudiated the Contract, or
- (b) without reasonable excuse has failed
 - (i) to commence the work in accordance with Sub-Clause 41.1, or
 - (ii) to proceed with the Works, or any section thereof, within 28 days after receiving notice to pursuant to Sub-Clause 46.1, or
- (c) has failed to comply with a notice issued pursuant to Sub-Clause 37.4, or an instruction issued pursuant to Sub-Clause 39.1 within 28 days after receiving it, or
- (d) despite previous warning from the Engineer, in writing, is otherwise persistently or flagrantly neglecting to comply with any of the obligation under the Contract, or
- (e) has contravened Sub-clause 4.1 :

then for the avoidance of doubt the contractor shall be in default of its obligations under this contract and furthermore the Employer may, after giving fourteen days' notice to the Contractor, enter upon the Site and expel the Contractor there from without thereby voiding the Contract, or releasing the Contractor from any of his obligations or liabilities under the Contract, or affecting the rights and powers conferred on the employer or the Engineer by the Contract, and may himself complete the Works or may employ any other contractor to complete the Works. The Engineer shall certify such completion so as to give effect to clauses 49.1(a) and 63.3. The Employer or such other contractor may use for such completion so much of the Contractor's Equipment, Plant, Temporary Works and

materials which have been deemed to be reserved exclusively for the execution of the Works, under provisions of the Contract, as he or they may think proper, and the Employer may, at any time, sell any of the said Contractor's Equipment, Temporary Works and unused Plant and materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the Contractor under the Contract.

63.2 Valuation at Date of Expulsion

The Engineer, as soon as may be practicable after any such entry and expulsion by the Employer, shall fix and determine ex party, or by or after reference to the parties or after such investigation or enquiries as he may think fit to make or institute, and shall certify :

- (a) what amount (if any) had, at the time of such entry and expulsion, been reasonably earned by or would reasonably accrue to the Contractor in respect of work then actually done by him under the Contract, and
- (b) the value of any of the said unused or partially used materials, any Contractor's Equipment and any Temporary Works.

63.3 Payments after Expulsion

If the Employer shall enter upon the site and expel the Contractor therefore under Clause 63.1, he shall not be liable to pay to the Contractor any further amount (including damages) in respect of the Contract until the expiration of the Defects Liability Period and thereafter until the costs of execution completion and remedying of any defects, damages for delay in completion (if any) and all other expenses incurred by the Engineer have been ascertained and the amount thereof certified by the Engineer. The Contractor shall then be entitled to receive only such sum (if any) as the Engineer may certify would have been payable to him upon due completion by him after deducting the said amount. If such amount exceeds the sum which would have been payable to the Contractor on due completion by him, then the Contractor shall, upon demand, pay to the Employer the amount of such excess and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly.

63.4 Assignment of Benefit of Agreement

Unless prohibited by law, the Contractor shall, if so instructed by the Engineer within 14 days of such entry and expulsion referred to in Sub-Clause 63.1, assign to the Employer the benefit of any agreement for the supply of any goods or materials or services and/or for the execution of any work for the purpose of the Contract, which the Contractor may have entered into.

64.1 Urgent Remedial Works

If, by reason of any accident, or failure, or other event occurring to or in connection with the Works, or any part thereof, either during the execution of the Works, or during the Defects Liability Period, any remedial or other work is, in the opinion of the Engineer, urgently necessary for the safety or progress of the Works and the Contractor is unable or unwilling at once to do such work, the Employer shall be entitled to employ and pay other person to carry out such work as the Engineer may consider necessary. If the work or repair so done by the Employer is work which, in the opinion of the Engineer, the Contractor was liable to do at his own cost under the contract, then all costs consequent thereon or incidental thereto shall after due consultation with the Contractor, be determined by the Engineer and shall be recoverable from the Contractor by the Engineer, and may be deducted by the employer from any monies due or to become due to the Contractor and the Engineer shall notify the Contractor accordingly. Provided that the Engineer shall, as soon after the occurrence of any such emergency as may be reasonably practicable notify the Contractor thereof.

SPECIAL RISKS

65.1 No Liability for Special Risks

The Contractor shall be under no liability whatsoever in consequence of any of the special risks referred to in Sub-Clause 65.2 whether by way of indemnity or otherwise, for or in respect of :

- (a) destruction of or damage to the "Works", save to work condemned under the provisions of Clause 39.1 to 39.2 prior to the occurrence of any of the said special risks, or
- (b) destruction of or damage to property, whether of the employer or third parties, or
- (c) injury or loss of life.

65.2 Special Risks

The special risks are :

- (a) the risks defined under paragraphs (a) sub-para (i), (ii), (iii) and (iv) of Sub-Clause 20.4.

65.3 Damage to Works by Special Risks

If the Works or any materials or Plant on or near or in transit to the Site, or any of the Contractor's Equipment, sustain destruction or damage by reason of any of the said special risks, the Contractor shall be entitled to payment in accordance

with the Contract for any Permanent Works duly executed and for any materials or Plant so destroyed or damaged and, so far as may be required by the Engineer or as may be necessary for the completion of the Works, to payment for;

- (a) rectifying any such destruction or damage to the Works, and
- (b) replacing or rectifying such materials or contractor's Equipment and the Engineer shall determine an addition to the Contract Price in accordance with Clause 52.1 to 52.4 (which shall be the case of the cost of replacement of Contractor's Equipment include the fair market value thereof as determined by the Engineer) and shall notify the Contractor accordingly, with a copy to the Employer.

65.4 Projectile, Missile

Destruction, damage, injury or loss of life caused by the explosion or impact, whenever and wherever occurring, or any mine, bomb, shell, grenade, or other projectile, missile, munitions, or explosive of war, shall be deemed to be a consequence of the said special risks.

65.5 Increased Costs arising from Special Risks

Save to the extent that the Contractor is entitled to payment under any other provision of the Contract, the Employer shall repay to the Contractor any costs of the execution of the Works (other than such as may be attributable to the cost of reconstructing work condemned under the provisions of Clause 39.1 to 39.2 prior to the occurrence of any special risk) which are howsoever attributable to or consequent on or the result of or in any way whatsoever connected with the said special risks, subject however to the provisions in this Clause hereinafter contained in regard to outbreak of war, but the Contractor shall, as soon as any such cost comes to his knowledge, forthwith notify the Engineer thereof. The Engineer shall, after due consultation with the Contractor, determine the amount of the contractor's costs in respect thereof which shall be added to the Contract Price and shall notify the Contractor accordingly.

65.6 Outbreak of War

If, during the currency of the Contract, there is an outbreak of war, whether war is declared or not, in any part of the world which, whether financially or otherwise, materially affects the execution of the Works, the Contractor shall, unless and until the Contract is terminated under the provisions of this Clause, continue to use his best endeavours to complete the execution of the Works. Provided that the employer shall be entitled, at any time after such outbreak of war, to terminate the Contract by giving notice to the Contractor and, upon such notice being given, the Contract shall, except as to the rights of the parties under this Clause and to the operation of Clause 67.1 to 67.4, terminate, but without prejudice to the rights of either party in respect of any antecedent breach thereof .

65.7 Removal of Contractor's Equipment on Termination

If the Contract is terminated under the provision of Sub-Clause 65.6, the Contractor shall with all reasonable dispatch, remove from the Site all Contractor's Equipment and shall give similar facilities to his Subcontractors to do so.

65.8 Payment if Contract Terminated

If the Contract is terminated as aforesaid, the Contractor shall be paid by the Employer insofar as such amounts or items have not already been covered by payments account made to the Contractor, for all work executed prior to the date of termination at the rates and prices provided in the contract and in addition:

- a) The amounts payable in respect of any preliminary items referred to in the Bill of Quantities, so far as the Work or service comprised therein has been partially carried out or performed.
- b) The cost of materials, plant or goods reasonably ordered for the Works which have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery, such materials, Plant or goods becoming the property of the Employer upon such payments being made by him.
- c) A sum being the amount of any expenditure reasonably incurred by the Contractor in the expectation of completing the whole of the Works insofar as such expenditure has not been covered by any other payments referred to in this Sub-Clause.
- d) Any additional sum payable under the provisions of Sub-Clauses 65.3 and 65.5.
- e) Such proportion of the cost as may be reasonable, taking into account payments made or to be made, for work executed, or removal of contractor's equipment under Sub- Clause 65.7 and, if required by the Contractor, return thereof to the Contract's main plant yard in his country of registration or to other destination, at no greater cost.
- f) The reasonable cost of repatriation of all the Contractor's staff and workmen employed on or in connection with the Works at the time of such termination.

Provided that against any payment due from the Employer under this Sub-Clause, the Employer shall be entitled to be credited with any outstanding balances due from the Contractor for advances in respect of Contractor's Equipment, materials and Plant and any other sums which, at the date of termination, were recoverable by the employer from the Contractor under the terms of the Contract. Any sums payable under this Sub- Clause shall, after due consultation with the Employer and the Contractor, be determined by the Engineer who shall notify the Contractor accordingly.

RELEASE FROM PERFORMANCE

66.1 Payment in Event of Release from Performance

If any circumstance outside the control of both parties arises after the issue of the Letter of Acceptance which renders it impossible or unlawful for either party to fulfil his contractual obligations, or under the law governing the Contract the parties are released from further performance, then the sum payable by the employer to the Contractor in respect of the work executed shall be the same as that which would have been payable under Clause 65.8 if the Contract had been terminated under the provisions of Clause 65.6.

SETTLEMENT OF DISPUTES

67.1 Engineer's Decision

If a dispute of any kind whatsoever arise between the Employer and the Contractor in connection with , or arising out of, the Contract or the execution of the Works, whether during the execution of the Works or after their completion and whether before or after repudiation or other termination of the Contract, including any dispute as to any opinion, instruction, determination, certificate or valuation of the engineer, the matter in dispute shall, in the first place, be referred in writing to the Engineer, with a copy to the other party. Such reference shall state that it is made pursuant to this Clause. Not later than the eighty-fourth day after the day on which he received such reference the Engineer shall give notice of his decision to the Employer and the Contractor. Such decision shall state that it is made pursuant to this Clause.

Unless the Contract has already been repudiated or terminated, the Contractor shall, in every case, continue to proceed with the Work with all due diligence and the Contractor and the Employer shall give effect forthwith to every such decision of the Engineer unless and until the same shall be revised, as hereinafter provided in an amicable settlement or an arbitral award.

If either the Employer or the Contractor be dissatisfied with any decision of the Engineer, or if the Engineer fails to give notice of his decision on or before the eighty fourth day after the day on which he received the reference, then either the Employer or the Contractor may, on or before the seventieth day after the day on which he received notice of such decision, or on or before the seventieth day after the day on which the said period of 84 days expired, as the case may be give notice to the other party, with a copy for information to the Engineer of his intention to commence arbitration as hereinafter provided, as to the matter in dispute. Such notice shall establish the entitlement of the party giving the same to commence arbitration, as hereinafter provided, as to such dispute and, subject to Sub-Clause 67.4, no arbitration in respect thereof may be commenced unless such notice is given.

If the Engineer has given notice of his decision as to a matter in dispute to the Employer and the Contractor and no notice of intention to commence arbitration as to such dispute has been given by either the Employer or the Contractor on or before the seventieth day after the day on which the parties received notice as to such decision from the Engineer, the said decision shall become final and binding upon the Employer and the Contractor.

67.2 Conciliation

Where notice of intention to commence arbitration as to dispute has been given in accordance with Sub Clause 67.1, arbitration of such dispute shall not be commenced unless, the party having dispute explored the possibility of conciliation with the other party as per the provisions of Part-III of the Arbitration and Conciliation Act, 1996. When such conciliation has failed, the parties shall adopt the following procedure for arbitration :-

67.3 Arbitration

67.3.1 Any dispute and differences relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used in 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, 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 completion or abandonment thereof in respect of which :-

- a) the decision, if any, of the Engineer has not become final and binding pursuant to Sub Clause 67.1 and
- b) Conciliation has not been reached as per the provisions of Clause 67.2

Shall be referred by the party having dispute to the Sole Arbitration of a person appointed by the Employer. Such Arbitrator shall be appointed within 30 days of the receipt of letter of invocation of Arbitration duly satisfying the requirements of this clause.

67.3.2 If the Arbitrator so appointed resigns his appointment, is unable or unwilling to act due to any reason whatsoever, or dies, the Employer aforesaid or in his absence the person discharging the duties may appoint a new Arbitrator in accordance with these terms and conditions of the contract, to act in his place and the new Arbitrator so appointed may proceed from the stage at which it was left by his predecessor.

67.3.3 It is a term of the contract that the party invoking the Arbitration shall specify the dispute/differences or questions to be referred to the arbitrator under this clause together with the amounts claimed in respect of each dispute.

67.3.4 The Arbitrator may proceed with the Arbitration ex-parte, if either party , in spite

of a notice from the Arbitrator, fails to take part in the proceedings.

67.3.5 The work under the contract shall continue, if required by the employer, during the Arbitration proceedings.

67.3.6 The Arbitrator shall make speaking Award and give reasons for his decision in respect of each dispute/claim alongwith the sums awarded separately on each individual item of dispute or difference or claims. The Arbitrator shall make separate award on each reference made to him.

67.3.7 The award of the Arbitrator shall be final, conclusive and binding on both the parties.

67.3.8 Subject to the aforesaid, the provisions of the Arbitration & Conciliation Act, 1996 or any statutory modifications or re-enactment thereof and the Rules made there under and for the time being in force shall apply to the Arbitration proceedings and Arbitrator shall publish his Award accordingly.

67.3.9 **The seat of arbitration shall be New Delhi.**

67.4 **Failure to Comply With Engineer's Decision**

Where neither the Employer nor the contractor has given notice of intention to commence arbitration of a dispute within the period stated in Sub-Clause 67.1 and the related decision has become final and binding either party may, if the other party fails to comply with such decision, and without prejudice to any other rights it may have, refer the failure to arbitration in accordance with sub-Clause 67.3 as if the conditions specified in clauses 67.3(a) and (b) had been satisfied with respect to such dispute. The provisions of Sub-Clause 67.1 shall not apply to any such reference.

NOTICES

68.1 **Notice to Contractor**

All certificates, notices or instructions to be given to the Contractor by the Employer or the Engineer under the terms of the Contract shall be sent by post, cable, telex or facsimile transmission to or left at the Contractor's principal place of business or such other address as the Contractor shall nominate for the purpose.

68.2 **Notice to Employer and Engineer**

Any notice to be given to the Employer or to the Engineer under the terms of the Contract shall be sent by post, cable telex or facsimile transmission to or left at the respective addresses nominated for the purpose in part II of these Conditions.

68.3 Change of Address

Either party may change a nominated address to another address in the Country where the Works are being executed by prior notice to the other party, with a copy to the Engineer, and the Engineer may do so by prior notice to both parties.

DEFAULT OF EMPLOYER

69.1 Default of Employer

In the event of the Employer:

- a) becoming bankrupt or being a company, going into liquidation, other than for the purpose of a scheme of reconstruction or amalgamation, or
- b) giving notice to the Contractor that for unforeseen reasons, due to economic dislocation, it is impossible for him to continue to meet his contractual obligations, or
- c) if the contractor becomes entitled under Sub-Clause 40.3 to terminate his employment under the contract in accordance with the provisions of this Sub-Clause,

the Contractor shall be entitled to terminate his employment under the contract by giving notice to the Employer, with a copy to the Engineer. Such termination shall take effect 14 days after the giving of the notice.

69.2 Removal of Contractor's Equipment

Upon the expiry of the 14 days notice referred to in Sub-Clause 69.1 the Contractor shall notwithstanding the provisions of Sub-Clause 54.1, with all reasonable despatch, remove from the site all contractor's equipment brought by him thereon.

69.3 Payment on Termination

In the event of such termination the employer shall be under the same obligations to the contractor in regard to payment as if the contract has been terminated under the provisions of clause 65.6, but, in addition to the payments specified in Sub-Clause 65.8 the Employer shall pay to the Contractor the amount of any loss or damage to the Contractor arising out of or in connection with or by consequence of such termination.

69.4 Contractor's Entitlement to suspend Works

Without prejudice to the Contractor's entitlement to interest under Sub-Clause 60.8 and to terminate under Sub-Clause 69.1, the Contractor may, if the Employer fails to pay the Contractor the amount due under any certificate of the Engineer within 28 days after the expiry of the time stated in Sub-Clause 60.8 within

which payment is to be made, subject to any deduction that the Employer is entitled to make under the Contract, after giving 28 days' prior notice to the Employer, with a copy to the Engineer, suspend work or reduce the rate of work.

If the contractor suspends work or reduces the rate of work in accordance with the provisions of this Sub- Clause and thereby suffers delay or incurs cost the Engineer shall after due consultation with the Contractor, determine

- a) any extension of time to which the contractor is entitled under clause 44.1 to 44.3, and
- b) the amount of such costs, which shall be added to the contract price.

And shall notify the Contractor accordingly.

CHANGES IN COST AND LEGISLATION

70.1 Increase or Decrease of Cost

It shall be added to or deducted from the Contract price such sums in respect of rise or fall in the cost of labour and/ or materials or any other matters affecting the cost of the execution of the works as may be determined in accordance with part II of these conditions.

70.2 Subsequent Legislation

If, after the date 28 days prior to the latest date for submission of tenders for the Contract there occur in the country in which the works are being or are to be executed changes to any National or State Statute Ordinance Decree or other Law or any regulation or bye-law of any local or other duly constituted authority, or the introduction of any such State Statute, Ordinance, Decree, Law, regulation or bye-law which causes additional or reduced cost to the contractor other than under sub-clause 70.1 in the execution of the Contract, such additional or reduced cost shall after due consultation with the employer and the Contractor be determined by the Engineer and shall be added to or deducted from the contract price and the engineer shall notify the Contractor accordingly.

70.3 Other Changes in Cost

To the extent that full compensation for any rise or fall in costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall of costs.

71.1 **Engineer's Authority to Correct Errors**

The Engineer shall at the request of either or both parties, or at his own initiative, subject to the provisions of this sub-clause and with retrospective effect from the date of this Contract have authority to make a determination correcting any manifest error (including for the avoidance of doubt and without prejudice to the generality of the Engineer's authority in this regard any error of spelling, grammar or punctuation and any omission, inclusion or misplacement of text) in any provision of this Contract Provided always that:

- (a) The Engineer before making such determination shall by notice to the Employer and the Contractor provide them with a draft thereof and give them a reasonable time in which to comment on the draft.
- (b) The Engineer shall in making such determination take into consideration the presumed intentions of the parties, the wording of any provision of the Conditions of Contract for use in connection with Works of Civil Engineering Construction Fifth Edition (June 1973) (Revised January 1979) ("the ICE Conditions of Contract") or of any other standard form of contract upon which the provision to be corrected has been based, and any comments received by the Employer and/or the Contractor on the draft determination provided to them under sub clause (a) of this clause.
- (c) The Engineer shall provide the Employer and the Contractor with a copy of the determination made by him and
- (d) Clause 67.1 to 67.4 shall for the avoidance of doubt apply to any dispute between the Employer and the Contractor in connection with or arising out of the Engineer's determination.

**PROFORMA
OF
INDENTURE FOR SECURED ADVANCE OR CREDIT**

THIS INDENTURE made this day of _____ between M/s. _____ (hereinafter called the Contractor) which expression shall where the Context as admits or implies be deemed to include his executors/ administrators and assigns of the one part and HSCC (India) Ltd., for and on behalf of **Regional Institute of Medical Sciences, Imphal** (hereinafter called the Engineer) which expression shall where the context so admits or implies be deemed to include its successors and assigns of the other part.

Whereas by an agreement dated _____ (hereinafter called the said agreement) the Contractor has agreed to construct _____ (the works or the said works).

And whereas the Contractor has applied to the Engineer that he may be or be given credited for materials brought by him to the site of the works subject to the said agreement for use in construction of the works.

NOW THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rs. _____ paid to the Contractor by The Engineer. The receipt where the Contractor hereby acknowledges and of such advance or credited (if any) as may be made to him as aforesaid the Contractor hereby covenants and agrees with The Engineer and declares as follows :-

1. That all sums given as advance or credit by The Engineer to the Contractor as aforesaid shall be employed by the Contractor in or towards the execution of the said works and for no other purpose whatsoever.
2. That the materials for which the advance or credit is given are offered to and accepted by The Engineer as security and are absolutely the Contractor's own property and free from encumbrances of any kind and the Contractor will not make any application for or receive further advance or credit on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor shall indemnify The Engineer against any claims to any materials in respect of which advance or credit has been made to him as aforesaid.

3. That the said materials and all other materials on the security of which any further advance or advances or credit may be given as aforesaid (hereinafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of The Engineer and in terms of said agreement.
4. That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper safe custody and protection against all risks of the said materials and that until used in the construction as aforesaid the materials shall remain at the site of the said works in Contractor's custody and on his own responsibility and shall at all times be open to inspection by The Engineer. In the event of the materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in greater degree than in due to reasonable use and wear thereof the Contractor will replace the same with other materials of like quality or repair and make good the same as required by The Engineer.
5. That the said materials shall not on any account be removed from the site of the work except with the written permission of The Engineer.
6. That the advance shall be repayable in full when or before Contractor receives payments from The Engineer of the price payable to him for the said works under the terms and provisions of the said agreements. Provided that if any intermediate payments are made to the Contractor on account of work done then on the occasion of each payment The Engineer will be at liberty to make a recovery from the Contractor's bill for such payments by deducting there from the value of the said materials than actually used in the contraction and in respect of which recovery has not been made previously. The value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advance as made under these presents were calculated.
7. That if the Contractor shall at any time make any default in the performance of observance in respect of any of the terms and provisions of the said agreement or of those provisions the total amount of the advance or advances that may still be owing to The Engineer, shall immediately on the happening of such default be repayable by the Contractor to The Engineer together with interest thereon at 12% per annum from the date or respective dates of such advance or advances to the date of payment and with all costs. Damages and expenses incurred by The Engineer in or for the recovery hereof or the enforcement of the security or otherwise by reasons of default of the Contractor and the Contractor hereby covenants and agrees with The Engineer repay and pay the same respective to him accordingly.

8. That the Contractor hereby charges all the said materials with the repayment to The Engineer of all sums advances or credit as aforesaid and all costs. Charges, damages and expenses payable under these presents PROVIDED ALWAYS it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the powers contained therein if and whenever the covenant for payment and repayment herein before contained shall become enforceable and the money owing shall not be paid in accordance therewith. The Engineer may at any time thereafter adopt all or any of the following courses as he may deem best :
 - a. Seize and utilise the said materials or any part thereof in the completion of the said works in accordance with the provisions in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion and the amount due in respect of advance or credit under these presents and crediting the Contractor with the value of work done as if he has carried it out in accordance with the said agreement and the rates thereby provided if the balance is against the Contractor is to pay the same to The Engineer on demand.
 - b. Remove and sell by public auction the seized materials or any part thereof and out of the money arising from the sale repay The Engineer under these presents and pay over the surplus (if any) to the Contractor.
 - c. Deduct all or any part of the moneys owing from any sums due to the Contractor under said agreement.
9. Except in the event of such default on the part of Contractor as aforesaid, interest or the said advance shall not be payable.
10. That in the event of conflict between the provisions of these presents and the said agreements, the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents, the settlement of which has not been hereinbefore expressly provided for the same shall so far as is lawful be referred to the Employer or to such person as he may appoint whose decision shall be final and the provisions of the Indian Arbitration Act for the time being in force shall apply to such reference.

IN WITNESS whereof the said The Engineer and the Contractor hereunto set their respective hands and seals the day and year first above written.

Signed sealed and delivered by

Contractor

The Engineer

**REGIONAL INSTITUTE OF MEDICAL SCIENCES
IMPHAL**

TENDER FOR

**CONSTRUCTION OF OPD & NURSING COLLEGE
UNDER PHASE - II
FOR
RIMS
AT
IMPHAL**

Volume – III

SPECIFIC CONDITIONS OF CONTRACT

Tender No : RIMS/HSCC/2010/01(P-I) dated _____

April 2010

ह.स.कं.क.

HSCC

HSCC (INDIA) LIMITED

**Plot – 6(A), Block – E, Sector 1,
NOIDA – UP – 201301**

phone : +91 120 2542436-40
Website : <http://www.hscltd.co.in>

Fax : +91 120 2542447

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26.0	Operation and Running of entire system
(B)	RELATING TO ELECTRICAL INSTALLATIONS
1.0	General
2.0	Regulations and Standards
3.0	Rates
4.0	Completeness of Bid
5.0	Works to be Done by the Contractor
6.0	Tools for Handling & Erection
7.0&7.1	Terminology & Scope
7.2	Measurement
8.0	Drawings
9.0	Conduit/ Trunking Layout
10.0	Shop Drawings
11.0	Manufacturer's Instruction
12.0	Materials & Equipment

Clause No.	Descriptions
13.0	Scale
14.0	Brochures & Data
15.0	Approval of Shop Drawings
16.0	Samples & Catalogues
17.0	Approval of Materials
18.0	Inspection, Testing and Inspection Certificate
19.0	Schedule & Manner of Operation
20.0	Performance Guarantee
21.0	Conformity with Statutory Acts, Rules & Standards
22.0	Completion Drawings (As Built Drawings)
23.0	Confirmation of Quantities
24.0	Terms of Payment
25.0	Training of Personnel
26.0	Completion Certificate
27.0	Check List
28.0	Repairs
29.0	Safe Custody & Storage
30.0	Testing and Commissioning
31.0	Operation and Running of entire system

32.0 Layout of all services, Operating and maintenance instructions. Dos & Don'ts etc.

(C) SPECIFIC CONDITIONS OF CONTRACT RELATING TO HVAC SYSTEM

Clause No.	Descriptions
1.0	General
2.0	Scope of Contract
3.0	Stores & Materials
4.0	Supply of Equipment
5.0	Working Drawings
6.0	Completion Drawings
7.0	Operation and Service manuals
8.0	Inspection at Contractors premises
9.0	Subcontracting
10.0	Material Submittals
11.0	Sample & Prototype
12.0	Testing & Commissioning
13.0	Provisional taking over
14.0	Operation of Plant
15.0	Guarantee & Defect liability period
16.0	Measurement of Works
17.0	Variation in Quantities
18.0	Maintenance
19.0	Performance Guarantee
20.0	Painting

Clause No.	Descriptions
21.0	Safe custody & Storage
22.0	Terms of Payments
23.0	Training of Personnel
24.0	Handing over Taking over process
25.0	Operation and Running of entire system
ANNEXURE A	Form of Agreement
ANNEXURE B	Proforma for Performance Bank Guarantee
ANNEXURE C	Proforma for Bid Security Bank Guarantee
ANNEXURE D	Appendix to Tender
ANNEXURE E	Proforma for Retention Money Bank Guarantee
ANNEXURE F	Proforma for Advance Bank Guarantee

INSTRUCTIONS TO BIDDERS

A. General

1.0 Description of Works

Construction of OPD & Nursing College including internal and external services Plumbing , Electrical, Firefighting and HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur.

The Scope of work comprising of **Construction of RCC Framed G+1/2/3 Structure**, civil works, Electrical works, HVAC, external development works such as roads, landscaping, internal and external electrification, sewerage, storm water drainage & fire fighting works etc and their maintenance during defect liability. The scope of work also includes preparation of all detailed drawings, obtaining approval from local authorities, electrical inspector, water & sewer line connection, pollution, permission/approval for tree cuttings, permission for borewell, completion certificates, occupancy certificate and all others local Statutory requirements if any, from the concerned authorities.

- 1.1 All the terms and conditions, undertakings of PQ documents under which the agency has been pre qualified for this work will have to be strictly followed and will be treated as part of this tender documents in addition to other terms and conditions of the tender documents. Value of work for such specialized works for which undertaking under Annexure VII submitted alongwith PQ documents will be the value quoted by the bidder for that specialized works.

1.2 The Employer

Regional Institute of Medical Sciences, Imphal Manipur acting through **Director, Regional Institute of Medical Sciences, Imphal Manipur** shall be the principal Employer / employer / owner for **Construction of OPD & Nursing College including internal and external services Plumbing, Electrical, Firefighting and HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur.**

All documents relating to Labour License, submission of drawings to statutory authority (ies) for obtaining necessary clearance(s) etc is to be signed /endorsed by of Principal employer/ employer / owner.

1.3 In these documents wherever the word Tender/ Tenderer / Tendering has been used. The same may be considered synonymous with Bid/ Bidder/ Bidding.

1.4 Time for Completion

The successful Bidder shall complete the whole Works within 30 (Thirty) Calendar months from Engineer's order to commence the Work.

2.0 Information to be submitted

2.1 Bids submitted shall include the following information:

- (a) Copies of original documents defining the constitution, legal status, place of registration and principal place of business of the company or firm
- (b) A work plan clearly bringing out how the Bidder proposes to carry out the work to achieve the quality and the time schedule.

The work plan shall clearly spell out with specific details of the following:

- i. Detailed programme in the form of **PERT/CPM network** clearly bringing out details of start & completion of all important activities and also programme showing material & labour resources related to the above PERT/CPM network
- ii. List of equipment along with details proposed to be used on the Works.
- iii. List and bio data of Engineers and other important staff members proposed to be employed on the Works.
- iv. Details of new and used shuttering proposed to be employed on the Works.

3.0 Cost of Bidding

3.1 The Bidder shall bear all costs associated with the preparation and submission of his Bids and "The Employer" will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

4.0 Site Visit

- 4.1 The Bidder is advised to acquaint himself with the job involved, visit the Site & examine soil conditions (No report will be provided by Engineer), climatic conditions, labour, power, water, material availability, transport and communication facilities, environmental regulations, laws and bye-laws of local Statutory bodies, Govt of Manipur & the Govt. of India and collect all information that will be necessary for preparing the Bid and entering into a Contract.

The cost of visiting the Site and collecting information for the purpose of submission of the Bid shall be to the Bidder's account.

- 4.2 The Bidder and any of his personnel or agents will be granted permission by the Employer to enter upon the Site for the purpose of such inspection, but only upon the express condition that the Bidder, his personnel or agents will release and indemnify the Employer and Employer's Personnel and agents from and against all liability in respect thereof and will be responsible for personnel injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, costs and expense however caused, which, but for the exercise of such permission would not have arisen.

B. Bid Documents

5.0 Content of Bid Documents

- 5.1 The Bid Documents comprise the following:

Volume I = Prequalification Document

Volume II = General Conditions of Contract

Volume III = Comprising :

- Instructions to Bidders
- Specific Conditions of Contract
- Additional Specific Conditions of Contract relating to
 - (a) Civil, Public Health works
 - (b) Electrical works.
 - (c) HVAC works.
- Sample Forms of Securities
- Sample Form of Agreement

Volume IV = Technical Specifications

Volume V = Bill of Quantities
Volume VI = Tender Drawings

5.2 The Bidder is expected to examine carefully all instructions, conditions, forms, terms, specifications and drawings in the Bid documents. Failure to comply with the requirements of the Bid Documents will be at the Bidder's own risk.

Bids, which are not substantially responsive to the requirements of the Bid documents, will be rejected. **Bidders are requested to clear their queries before submission of bids and submit bids without conditions.**

6.0 Clarification on Bid Documents

6.1 A interested Bidder requiring any clarifications on the Bid documents may notify the Engineer in writing or by telex or cable at the Engineer's mailing address indicated in the Bid documents. A meeting of the prospective Bidders shall be held at which the Engineer will respond to any request for clarification(s) which he receives within two weeks of the first date of the issue of the Tenders. Written copies of the Engineer's response (including an explanation of the query but without identifying the source of the inquiry) will be sent to all prospective Bidders who have received the Bid documents.

7.0 Amendment of Bid Documents

7.1 At any time prior to the dead line for submission of Bids, the Engineer may for any reason, whether at his own initiative or in response to a clarification requested by the prospective Bidder, modify the Bid documents by amendment.

7.2 The amendment will be sent to all prospective Bidders who have received the Bid documents, to arrive not later than 3 days prior to the original or extended deadline for submission of Bids, in writing or by telex or cable and will be binding upon them. Prospective Bidders should promptly acknowledge receipt thereof by telex or cable to the Engineer.

7.3 In order to afford prospective Bidders reasonable time in which to take an amendment into account in preparing their Bids, the Engineer may, at his discretion, extend the deadline for the submission of Bids.

C. Preparation of Bids

8.0 Language of Bid

8.1 The Bid prepared by the Bidders and all correspondence and documents relating to the Bid exchanged by the Bidder and the Engineer shall be written in the English Language.

9.0 Documents comprising the Bid

9.1 The Bid to be prepared by the Bidder shall comprise of the following: the prequalification document duly filled with required information including all supporting documents, the Bid and Appendix thereto, the Bid Security, the Bill of Quantities; the Schedules of Supplementary information, and any other materials required to be completed and submitted in accordance with the instructions to Bidders embodied in these Bid documents. The Forms, Bill of Quantities and Schedules provided in these Bid documents shall be used without exception.

9.2 All documents issued for the purpose of Bidding as described in Clause 5.1 and amendments issued in accordance with Clause 7, shall be deemed incorporated in the Bid. Bid Documents prepared and submitted in accordance with Clause 14 and 15 shall be returned by Bidders to the Employer along with the submission of the Bid.

10.0 Bid Prices

10.1 The Bidder shall fill the rates against each item of Bill of Quantities both in words and figures in the blank spaces provided in the respective columns. Item for which no rate or price is entered by the bidder will not be paid for by the Employer/Engineer and its price shall be deemed to be included and covered in the others rates and prices in the bill of quantities. The quantity of execution of such item shall be as per requirement and as such there will be no limit. Correction, if any, shall be made by crossing out, initialling, dating, stamping and rewriting. Wherever, in any head, if the same items are appearing and contractor has quoted different rates, contractor shall be paid the lowest quoted rate for such items.

10.2 All duties, taxes including but not limited to works contract tax, Building Cess, Service Tax, etc. and other levies payable by the Contractor under the Contract, including Contractors profit and over heads, etc. or for any other cost shall be included in the rates and prices and the total amount of Bid submitted by the Bidder. The evaluation and comparison of Bids by the Engineer shall be made accordingly.

10.3 The rates and prices quoted by the Bidder shall be fixed for items complete in all respect for the duration of the Contract and not subject to adjustment on any account except as otherwise provided in the conditions of Contract.

10.4 The Bidder shall fill his most competitive rates in the first instance as no negotiations shall be made after opening of the Tenders, except if required with the lowest Bidder.

11.0 Bid Validity

11.1 The Bid shall remain valid and open for acceptance for a period of **120 days** from the last date fixed for receiving the same.

11.2 In exceptional circumstances prior to expiry of the original Bid validity period, the Engineer may request the Bidder for a specified extension in the period of validity. The request and the responses thereto shall be made in writing or by cable or telex. A Bidder may refuse the request without forfeiting his Bid Security. A Bidder agreeing to the request will neither be required nor permitted to modify his Bid, but will be required to extend the validity of his Bid Security correspondingly.

12.0 Bid Security

12.1 The Bidder shall furnish, as part of his Bid, a Bid Security of the amount of **Rs.40,00,000/- (Rs Forty lacs only) having validity period of 150 days from the last date fixed for receiving of bid.** No deviation shall be permitted from this.

12.2 The Bid Security shall be in the form of a Demand Draft/Pay Order/Bank Guarantee in favour of M/s HSCC (India) Ltd., E-6(A), Sector 1, Noida (UP) - 201301 from any Nationalised/Scheduled bank.

12.3 Any Bid not accompanied by an acceptable Bid Security will be straightaway rejected.

12.4 The Bid Securities of unsuccessful Bidders will be returned as promptly as possible, but not later than 30 days after the expiration of the period of Bid validity prescribed by the Employer.

12.5 The Bid Security of the successful Bidder will be returned upon the Bidder executing the Contract and furnishing the required Performance Security.

12.6 The Bid Security may be forfeited

- a) If a Bidder withdraws his Bid during the period of Bid validity.

- b) In the case of successful Bidder, if he does not :
 - i) enter into the Contract, or
 - ii) furnish the necessary Performance Security
 - iii) agree to arithmetic corrections made as per terms of Bid documents.
 - iv) Submitted any misleading information during prequalification and or tendering process.

13.0 No interest will be payable by the Engineer on the Bid Security amount cited above.

14.0 Format and Signing of Bid

14.1 The Tender shall be filled & signed only by the firm/corporation/joint venture in whose name the Tenders have been issued. The Bid shall be typed or written in indelible ink and duly signed by a person or persons duly authorised to being the Bidder to the Contract. Proof of authorization shall be furnished in the form of written Power of Attorney, which shall accompany the Bid.

14.2 All pages of Bid shall be initialled and stamped by the person signing the Bid where entries or amendments have been made.

14.3 The complete Bid shall be without alterations interlining and erasures except those to accord with instruction issued by the Engineer or as necessary to correct errors made by the Bidder in which case such correction shall be initialled by person signing the Bid.

D. Submission of Bid

15.0 Sealing, Marking & Submission

15.1 The Bid shall be submitted in accordance with the procedure detailed herein. Specified documents shall be enclosed in envelope of appropriate size each of which shall be sealed.

- (i) Envelope No. 1: Shall contain the Prequalification Document (Volume-I) and Bid Securities as indicated in Clause 12 of these Instructions to Bidders.
- (ii) Envelope No. 2 : Shall contain covering letter and the other Bid documents duly signed including the following:

- (a) Power of attorney of person authorised to sign the Bid. In case the Bid is submitted by a joint venture, each of the partners of the joint venture to sign the Bid on their behalf and the Bid of the joint venture shall authorise the person signing the Bid to do so on their behalf.
 - (b) Original Bid documents (all pages) & drawing (Volume II, III IV & VI) duly signed and stamped.
 - (c) Documents regarding constitution of Bidder as indicated in Clause 2.1 of these Instructions to Bidders.
 - (d) Certificate of Registration.
 - (e) All the information as stipulated in clause 2.0 under information to be submitted
 - (f) Schedule of submission of structural design, drawings and all other shop drawings of civil, sanitary and plumbing, electrical, HVAC, Fire-Fighting works etc.
 - (g) Construction Schedule, **PERT Chart** and Schedule for manpower to be deployed at Site.
- (ii) Envelope No. 3 : Shall contain only the Bill of Quantities and rates/prices (Volume V) duly filled in and signed and stamped without any conditions whatsoever. Bids containing any conditions in Envelope No. 3 are liable to be summarily rejected.

The Contractor must fill up price against each item of BOQ (Volume V) both in words and figures in the blank spaces provided in the respective columns. The rates written in words shall prevail in case of any variation between the rates mentioned in figure and words.

Please note that the price should not be indicated in any of the documents enclosed in Envelope no. 1& 2. Non-compliance shall entail rejection of the Bid.

No rates to be quoted for the items where nil quantity is mentioned against that item. Indicating NIL quantity does not mean that this item will not be operated in the work. Rate of item quoted under any section of Bill of Quantity is interchangeable and minimum rate quoted for the same item under any section will be taken for payment

15.2 The Bidder shall seal the Bid.

15.3 All the above three envelopes shall be sealed in a fourth envelope and addressed to **General Manager(Civil), HSCC (India) Ltd., E-6(A), Sector 1, Noida (UP) - 201301.**

15.4 All the above envelope shall bear the following identification:

Name of work: **Construction of OPD & Nursing College including services Plumbing, Electrical , Firefighting & HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur**

Tender number, Due date and Time.

15.5 All the envelopes shall indicate the name and address of the Bidder to enable the Bid to be returned unopened, if required.

15.6 All recipients for the purpose of submitting a Bid shall treat the contents of the documents as private and confidential.

16.0 Deadline for Submission of Bids

16.1 Bids must be received by the Engineer, HSCC (I) Ltd., Corporate Office, Plot E-6(A), Sector 1, Noida - 201301, not later than **15 00 hours** of the **designated Date.**

16.2 The Engineer may, at his discretion, extend the deadline for submission of Bids through the issuance of an amendment in accordance with Clause 7 in which case all rights and obligations of the Employer and the Bidders previously subject to the deadlines shall thereafter be subject to the new deadline as extended.

17.0 Late Bids

17.1 Any Bid received by the Employer/Engineer after the prescribed deadline for submission will liable to be rejected and will be returned unopened to the Bidder.

18.0 Modification and Withdrawal of Bid

18.1 The Bidder may modify or withdraw his Bid after Bid submission, provided that modification or notice of withdrawal is received in writing by the Engineer prior to the prescribed deadline for submission of Bids.

18.2 The Bidder's modification or notice of withdrawal shall be prepared, sealed, marked and despatched in accordance with the provisions for the submission of Bids. Notice of withdrawal may also be sent by telex or

cable but shall be followed by a signed confirmation copy, postmarked not later than the deadline for submission of Bids.

- 18.3 No Bid may be modified subsequent to the dead line for submission of Bids.
- 18.4 No Bid may be withdrawn in the interval between the deadline for submission of Bids and the expiration of the period of validity of the Bid specified. Withdrawal of a Bid during this interval may result in the forfeiture of the Bid Security.
- 18.5 Subsequent to the expiration of the period of validity of Bids prescribed in the Bid documents, a successful Bidder who has not been notified by the Engineer of the Award of the Contract may withdraw his Bid without penalty.

E. Bid Opening and Evaluation

19.0 Bid Opening

- 19.1 Bids shall then be opened in the office of HSCC (I) Ltd., at Plot - 6 (A), Block - E, Sector - I, Noida, Uttar Pradesh - 201 301, half an hour after the prescribed time for Bid submission, in presence of the Bidders' representatives who may wish to be present.

Envelope No.1: Shall be opened first. If the Bid Security is not found as prescribed, the Bid shall be summarily rejected.

The bids of the bidders who are not pre-qualified shall not be opened further.

Envelope No.2 : Shall be opened of the bidders who are pre qualified at a subsequent date to be intimated in advance to such eligible Bidders

Bids of parties who do not accept the conditions laid above in the bid Documents are also liable to be rejected.

- 19.2. The Engineer will examine the Bids to determine whether they are complete, whether the requisite bid securities have been furnished, whether the Bids have been properly signed and stamped and whether the Bids are generally in order.
- 19.3 Telegraphic/Fax offer will be treated as defective, invalid and rejected. Only detailed complete Bids received prior to the closing time and date of the Bids will be taken as valid.

19.4 The Bidder's names, general technical details, the presence of the requisite Bid Security and such other details as the Engineer, at his discretion may consider appropriate will be announced at the Bid opening.

Envelope No. 3 : Shall contain the sealed price Bid. Bidders, whose bid is found to be generally in order and substantially responsive shall be opened either at the Bid opening or at a subsequent date to be intimated in advance to such eligible Bidders.

19.5 Only summary of prices quoted by the Bidders will be read out.

19.6 The Bid of any Bidder who has not complied with any of the instructions contained herein may not be considered.

20.0 **Process to be Confidential**

20.1 After the public opening of Bids, information relating to the examination, clarification, evaluation and comparisons of Bids and recommendations concerning the Award of Contract shall not be disclosed to Bidders or other persons not officially concerned with such process.

20.2 Any effort by the Bidder to influence the Employer/ Engineer in the process of examination, clarification, evaluation and comparison of Bids and decision concerning Award of Contract may result in the rejection of the Bidder's Bid.

21.0 **Clarification of Bids**

21.1 To assist in the examination, evaluation and comparison of Bids, the Engineer may ask Bidders individually for clarification of their Bids, including breakdowns of unit prices. The request for clarification and the response shall be in writing or cable or telex, but no change in the price or substance of the Bid shall be sought, offered or permitted except as required to confirm the correction or arithmetical errors discovered by the Engineer during the evaluation of the Bids in accordance with Clause 24 hereof.

22.0 **Determination of Eligibility & Responsiveness**

22.1 The Engineer will determine whether the Bid is substantially responsive to the requirements of the Bid documents.

For the purpose of this Clause, a substantially responsive Bid is one which conforms to all the terms, conditions and specifications of the Bid documents without any deviation or reservation.

22.2 A Bid, which in relation to the cost estimates of the Engineer is unrealistically priced and which cannot be substantiated satisfactorily by the Bidder may be rejected as non responsive.

23.0 Correction of Errors

23.1 Bids, determined to be substantially responsive will be checked by the Engineer for any arithmetical errors in computation and summation. Errors will be dealt by the Engineer as follows :

- a) Where there is discrepancy between rates indicated in figures and in words, rates in words will govern.
- b) Incorrectly added totals will be corrected.
- c) In case of any clerical error between rates indicated in figures and words, the rate in words shall prevail. In case there is any inconsistency between the rate and the value extended (after multiplication with the tender quantity), the rate quoted shall prevail.

23.2 If a Bidder does not accept the correction of errors as outlined above, his Bid will be rejected.

24.0 Evaluation and Comparison of Bids

24.1 Only such of the Bids as have been determined to be substantially responsive to the requirements of the Bid documents, in accordance with Clause 22 will be evaluated. Other non-responsive Bids will be rejected.

24.2 Bidders shall note that no preference of any nature will be given to any Bidder notwithstanding any custom, usage or instructions to the contrary.

24.3 Evaluation of the Bids will take into account, in addition to the Bid amounts, the following factors:

- a) Arithmetical errors corrected in accordance with Clause 23.
- b) Such other factors as the Engineer considers may have a potentially significant impact on Contract execution price and payments.

24.4 Offers, deviations and other factors, which are in excess of the requirements of the Bid documents or otherwise result in the accrual of

unsolicited benefits to the Employer, shall not be taken into account in Bid evaluation.

- 24.5 Price adjustment provisions applying to the period of execution of the Contract shall not be taken into account in Bid evaluation except to the extent specifically stated in the Contract.

F. Award of Contract

25.0 Award Criteria

- 25.1 Subject to Clause 26, Engineer will Award the Contract after prior approval by the Employer to the Bidder whose Bid has been determined to be eligible and to be substantially responsive to the Bid documents and who has offered the lowest evaluated Bid of the Bill of Quantities, provided further that the Bidder has the capability and resources effectively to carry out the Contract Works before award of work , but in all the cases the time allowed for completion for whole work will remain 30 months only

26.0 Engineer's Right to Accept any Bid, to Reject any or all Bids

- 26.1 Notwithstanding Clause 25, the Employer/Engineer reserves the right to accept or reject any Bid including the lowest and to annul the Bidding process and reject all Bids, at any time prior to Award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligations to inform the affected Bidder or Bidders of the grounds for the Employer's/Engineer's action.

27.0 Notification of Award

- 27.1 Prior to the expiration of the prescribed period of Bid validity, the Engineer will notify the successful Bidder by cable or telex or letter confirmed in writing by registered letter that his Bid has been accepted.
- 27.2 The notification of Award will constitute the formation of the Contract.
- 27.3 Upon the furnishing by the successful Bidder of a Performance Security in accordance with the provisions of Clause 29, the Engineer will promptly notify the unsuccessful Bidders that their Bids have been unsuccessful.

28.0 Signing of Agreement

Upon the receipt of the notification of Award by the successful Bidder, the successful Bidder shall fill the Agreement in accordance with form of Agreement included in the Bid documents and submit the same to the

Engineer within two weeks of the date of receipt of notification of Award. The Engineer shall return the draft duly approved within one day from the date of receipt of the draft and the successful Bidder shall get the same engrossed, have the correct amount to stamp duly adjudicated by Superintendent of Stamps and thereafter return the same duly signed and executed on behalf of the successful Bidder, all at his own cost within 3 days from the receipt of the approved draft.

29.0 Performance Security

- 29.1** Within 15 days of receipt of the notification of Award from the Engineer, the successful Bidder shall furnish to the Engineer a Security in the form of a Bank Guarantee from Nationalised/Scheduled bank for an amount of 5 (Five) percent of the Contract sum. The validity of the Performance Security shall be upto the end of the Defect Liability Period with 3 months claim period after the expiry of Defect Liability Period.
- 29.2** In cases, where the aggregate of expected Contract payment would at any time exceed the Engineer's estimate of actual work performed by more than the amount of Performance Security specified in Clause 29.1 such Security shall be increased accordingly at the expense of the successful Bidder.
- 29.3** Failure of the successful Bidder to lodge the required security in the form of Bank Guarantee shall constitute sufficient grounds for the annulment of the Award and forfeiture of the Bid Security, in which event the Engineer may make the Award to the next lowest evaluated Bidder or, if there are no other Bidders, call for new Bids.

SPECIFIC CONDITIONS OF CONTRACT

The Conditions of Contract shall be GENERAL CONDITIONS OF CONTRACT in Volume II (hereinafter called the General Conditions) as modified or added to by the following Specific Conditions of Contract, which shall be read and construed with the General Conditions as if they were incorporated therewith.

Insofar as any of the Conditions of Specific Conditions of Contract conflict or be inconsistent with any of the General Conditions, the conditions of Specific Conditions of Contract shall prevail.

30.0 Definitions

- a) "PRINCIPAL EMPLOYER/ EMPLOYER " means Director Regional Institute of Medical Sciences, Imphal, Manipur
- b) "Engineer" means the person or any officer nominated by the Chairman-cum-Managing Director, HSCC (India) Ltd to act as Engineer from time to time.
- c) "Site In charge" means the person designated in charge of works by the Engineer.
- d) "Month" and "Year" and all dates shall be calculated according to the Gregorian Calendar.

31.0 Insurance of Works

All Insurances referred to in General Conditions shall be effected with an Indian Insurance Company incorporated and registered in India. All insurances and labour license to be submitted before commencement of works.

32.0 Guarantees

Performance Guarantees, Advance Payment Guarantee, Retention money Guarantee and any insurance policies entered into by the Contractor under the terms of the Contract, shall stipulate that the proceeds of any claim shall be payable to Employer.

33.0 Certificates and Payments

- a) Retention Money
 - i) With in 15 days of award of work, The contractor shall furnish a Bank Guarantee from any Nationalised / Scheduled

Bank for an amount of 2.5% (Two and half percent)of the contract price in the form approved by the Engineer and having validity up to completion period with claim period of three months as per format attached at Annexure-E.

Further retention money @ 5% (Five Percent) shall be deducted from each interim certificate from First RA bill subjected to a maximum of 2.5% (Two & Half Percent) of the contract price and shall be released after defect liability period.

Alternatively/ or

Retention money at the rate of 10% (Ten Percent) shall be deducted from each interim payment certificate subject to the maximum of 5% (Five Percent) of the contract price after the approval of the Engineer.

- b) The Retention Money shall, subject to Clause 60.6(a) & 60.6(b) of General Conditions of Contract, become due and shall be paid to the Contractor when the Engineer shall issue the taking Over certificate notwithstanding that at such time there may be outstanding claims by the Contractor against the Employer, provided always that if at such time there shall remain to be executed by the Contractor any Works ordered during the Defect Liability Period pursuant to Clause 49.1, 49.2, 49.3, 49.4 and 50.1 of the General Conditions hereof, the Employer shall be entitled to withhold payment until the completion of such Works as much of the Retention Money as the Engineer may in his absolute discretion think fit.
- c) Payment against each monthly R/A bills upon each of the Engineer's certificates shall be made by the Engineer, acting for and on behalf of Employer or by the Employer directly within 30 working days after such certificate has been issued by the Engineer.

However, 75% of the estimated amount as determined by the Engineer of the payment due against the monthly running bill shall be paid within 10 (Ten) working days after certification by the Engineer in the approved format and complete in all respects.

- d) The Engineer may at any time make any corrections or modifications to any certificate, which shall have been issued by him and shall have power to withhold any certificate if the Works or any parts thereof are not being carried out to his satisfaction.

- e) The responsibility for making the payments or meeting other obligations to the Contractor in respect of all Works as certified by the Engineer shall be that of the Employer and not of the Engineer.
- f) After completion of work and prior to final payment, the contractor shall furnish to the engineer, a release of claim against the Employer arising out of contract, other than claims specifically identified, evaluated and excepted from the operation of the release by contractor.
- g) Contractor has to submit break up of BOQ rate for approval of engineer to facilitate approval of interim payment by the Engineer. However final decision on break up of rates to be paid in parts/stages will be taken by Engineer
- h) Monthly bill not submitted in approved formats will not be accepted.
 - i) Ordinarily running payments shall be made monthly as per terms of contract but payment shall not be made if the amount of the running bill is less than half the average monthly value of contract, i.e, contract value divided by stipulated period in months. This supersedes all other payment terms.

34.0 Settlement of Disputes - Arbitration

Sub Clause 67.1, 67.2, 67.3 and 67.4 of G.C.C. shall be followed.

35.0 Address

a. The address of the Employer is as follows :

Director, Regional Institute of Medical Sciences, Imphal , Manipur

b. The address of the Engineer is as follows:

The Chief General Manager (PG-II), HSCC (India) Ltd., Plot -6 (A) , Block -E, Sector 1, Noida, Uttar Pradesh) - 201301

c. The address of the Contractor is

36.0 THE FOLLOWING SHALL BE READ IN ADDITION TO CLAUSE 34.1 TO THE GENERAL CONDITIONS

36.1 Labour

36.1.1 Engagement of Labour

The contractor shall make his own arrangement for engagement of all labour, local or otherwise, and, save insofar as the contract otherwise provides, for the transport, housing, feeding and payment thereof.

36.1.2 Supply of water

The contractor shall provide at his own cost adequate quantity of drinking water on the site to the satisfaction of the Engineer's Representative for the use of contractor's and the Engineer's staff and work people, sub contractor and site visitors.

36.1.3 Alcoholic Liquor or Drugs

The Contractor shall not import, sell, give, barter or otherwise dispose of any alcoholic liquor, or drugs, or permit or suffer any such importation, sale, gift, barter or disposal by his sub-contractor, agents or employees.

- 36.1.4 Arms and Ammunition
The Contractor shall not give, barter or otherwise dispose off to any person or persons, any arms or ammunition of any kind or permit or suffer the same as aforesaid.
- 36.1.5 Festivals and religious Customs
The Contractor shall in all dealing with labour in his employment have due regard to all recognised festivals, days of rest and religious or other customs.
- 36.1.6 Epidemics

In the event of any outbreak of illness of an epidemic nature, the contractor shall comply with and carry out such regulation, orders and requirements as may be made by the government, or the local medical or sanitary authorities for the purpose of dealing with and overcoming the same.
- 36.1.7 Disorderly Conduct, etc

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his employees and for the preservation of peace and protection of persons and property in the neighbourhood of the works against the same.
- 36.1.8 Observation of legislation etc.

The Contractor shall at all times during the continuance of the contract comply fully with all existing Acts, regulation and bylaws including all statutory amendments and re-enactments and acts that may be passed in future either by state or the central Government or local authority, including, Indian Workmen's compensation act, Contract Labour (Regulation and Abolition) Act 1970 and Equal Remuneration Act 1976. Factories Act, Minimum wages Act, Provident Fund regulations, Employees Provident Fund Act and Schemes made under same act, Health and sanitary arrangements for workmen, Insurance and other benefits and shall keep the employer indemnified in case any action is commenced for contravention by the contractor. If the Employer is caused to pay or reimburse any amount for non-observance of the provision of this clause on the part of the contractor, the Engineer shall have the right to deduct from any moneys due to the contractor or recover from the Contractor personally any sum required or estimated to be required for making good the loss or damage suffered by the Employer. All registration and station inspection fees if any in respect of his work pursuant to the contract shall be to the account of the Contractor.

36.1.9 Fair Wages

The Contractor shall pay the labours engaged by him on the work not less than a fair wages, which expression shall mean, whether or time or piecework, the respective rates of wages as fixed by the public works department as fair wages for the area payable to the different categories of Labourers or those notified under the Minimum Wages Act for corresponding employees of the employer whichever may be higher.

36.1.10 The contractor shall notwithstanding the provisions of any contract to the contrary, cause to be paid a fair wage to the labourers indirectly engaged on the works including any labour engaged by subcontractor in connection with the said works as if the labourers has been immediately employed by him.

36.1.11 Notices

The Contractor shall before he commences the work display and correctly maintain in clean and legible condition at a conspicuous place on the site notices in English and in a local language spoken by the majority of the workers, stating therein the rate of wages which have been fixed as fair wages and the hours of work for which such wages are earned and send a copy of such notices to the Engineer.

36.1.12 Wage Records

The Contractor shall maintain records of wages and other remuneration paid to his employees in such form as may be convenient and to the requirement of the Employer/Engineer and the conciliation officer (Central) Ministry of labour, Government of India, or such other authorised person appointed by the central or state government and the same shall include the following particulars of each worker:

- I) Name works number and grade
- II) Rate of daily or monthly wage.
- III) Nature of work on which employed.
- IV) Total number of days worked during each wage period.
- V) Total amount payable for the work during each wage period.
- VI) All deduction made from the wage with details in each case of the ground for which the deduction is made.
- VII) Wage actually paid for each wage period.

36.1.13 The contractor shall provide a wage slip for each worker employed on the works.

36.1.14 The wage record and wage slips shall be preserved for least 12 months after the last entry.

36.1.15 Inspection of wage Records

The contractor shall allow inspection of the aforesaid wage records and wage slip to the engineer and to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Employer or any other person authorised by him on his behalf.

36.1.16 The Employer and the Engineer or any other person authorised by them on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observation of the fair wages clause. He shall also have the power to investigate into any complaint regarding any default made by the contractor or sub-contractor in regard to such provision.

36.1.17 The Employer shall have the right to deduct from money 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 payment of the aforesaid fair wage, except on account of any deduction that may be permissible under any law for the time being in force.

36.1.18 Representation of parties

- (i) A workman shall be entitled to be represented in any investigation or enquiry under this clause by :-
 - (a) An officer of a registered trade union of which he is a member.
 - (b) An officer of a federation of trade union to which the trade union referred to in previous sub-clause is affiliated.
 - (c) Where the worker is not a member of any registered trade union, by an officer of a registered Trade union connected with or by any other workmen employed in the industry in which the workers is employed.
- (ii) The contractor or sub-contractor shall be entitled to be represented in any investigation or enquiry under this clause by an officer of an Association of Employers of which he is a member.
- (iii) No party shall be represented by a legal practitioner in any Investigation or enquiry under this clause, unless all parties agree.

36.1.19 Safety Provision

The contractor shall comply with all the precautions as required for the safety of the workman by I.L.O. convention (No.62) as far as they are applicable to the contract. The contractor shall provide all necessary safety applications, gears like goggles, helmets, masks, etc. to the workmen and the staff.

The contractor shall be responsible for observance by his sub contractor of the forgoing provisions

36.1.20 Footwear

The contractor shall at his own expense provide footwear for all labour engaged on concrete mixing work and all other type of work involving the use of tar, cement, etc. to the satisfaction of the Engineer or his Representative, and on his failure to do so the Employer shall be entitled to provide the same and recover the cost from the Contractor

The contractor shall deliver to the Engineer's representative at his office on the site a return in detail in such form and at such interval as the Employer/Engineer may prescribe showing the supervisory staff and the number of the several classes of labour from time to time employed on the site.

36.2 Variation in Price

CLAUSE 10CA Payment due to variation in prices of Materials (Steel & Cement) after receipt of Tender.

If after submission of the tender, the price of material specified in schedule F (mentioned below) increases/decreases beyond the prices prevailing at the time of last stipulated date for receipt of tenders (including extensions if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of contract including the justified extended period.

However for work done/during the justified period extended as above, it will be limited to indices prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.

The increase/decrease in prices shall be determined by the All India Wholesale Price indices for Materials as published by Economic Advisor to Government of India, Ministry of Commerce and industry and base price as per scheduled F (Mentioned below)

The amount of the contract shall accordingly be varied for cement/or steel reinforcement bars and will be worked out as per the formula given below:-

Adjustment for component of individual material :

$$V = P \times Q \times \frac{CI - Clo}{Clo}$$

Where,

V = Variation in Material (cement and /or steel) cost i.e. increase or decrease in the amount in rupees to be paid or recovered

P = Base Price of material cost as per scheduled F (Mentioned Below).

Q = Quantity of material used in the works since previous bill.

Clo= All India whole sale price index for the material as published by the Economy advisor to Government of India, ministry of Industry and commerce as valid on the stipulated date of receipt of tenders including extension if any.

CI= All India wholesale price Index for Material for period under consideration as published by Economic Advisor to Government of India, Ministry of Industry and commerce.

(In respect of the justified period extended), the index prevailing at the time of stipulated date of completion or the prevailing index of the project under consideration, whichever is less shall be considered.

Base prices to be considered for escalation & recoveries

Sl. No	Material	Star Price (Rate in Figures and Words)
1	For Cement	<i>as valid at the time of last stipulated date of receipt of tender and shall be intimated accordingly</i>
2(a)	For Reinforcement Steel TMT bars 8 and 10 mm FE 415/500	<i>as valid at the time of last stipulated date of receipt of tender and shall be intimated accordingly</i>
2(b)	For Reinforcement Steel TMT bars 12 mm and above FE-415/500	<i>as valid at the time of last stipulated date of receipt of tender and shall be intimated accordingly</i>

36.2.1 Subsequent Legislation

If, after the date seven days prior to the latest date for submission of Bids for the Works, there occurs changes to any National or State Statute, Ordinance, Decree or other law or any regulation or bye-law of any local or other duly constituted authority or the introduction of any such statute ordinance, etc. which causes additional or reduced cost, the same shall be certified by the Engineer and shall be paid by or credited to the Employer and the Contract Price adjusted accordingly.

The following items are not to be included in the price adjustment calculations:

- a. Liquidated Damages.
- b. Retention money withheld and released.
- c. Advance payments in the form of loan and their repayments.
- d. Value of any additional or varied work valued at current price.
- e. Payment to nominated subcontractors included as "Provisional sums" or "Prime cost" items in the Contract Price.

37.0 Taxation

The Contractor shall pay all taxes, cess, duties, levies, work contract tax etc. of the Government provisions of the Income tax Act or as per the advice of the Income Tax Authority. Deduction of Income tax/ Works Contract tax/ other taxes shall be made from each certificate of payment as per the relevant provisions of the Income tax Act or as per the advice of the Income tax Authority/ other Competent Authority(ies).

38.0 Co-ordination Meeting

The Contractor shall be required to attend co-ordination meetings with the Engineer, the Consultant and the other Contractors during the period of Contract as instructed by the Engineer. All costs incidental to such interaction shall be to the Contractor's account and no claim will be entertained by the Employer/Engineer on this account.

38.1 Engineer's visit to site

The contractor/his representative shall be required to be present during periodical site visit of the engineer along with all the drawings and details required by the engineer. The contractor will make all the places accessible for the smooth visit of engineer at site. The contractor will take all permissions and to make all the arrangements for visit of any place or any local authority concerned related to the works.

39.0 Special Instruction

39.1 Site Information

The proposed site for **Construction of OPD & Nursing College for Regional Institute of Medical Sciences is situated at Imphal, Manipur.**

39.2 A .Site Development

- a) Proper pumping arrangement should be maintained at site for removing water from basement/low lying areas at no extra cost.
- b) Proper arrangement of security, safety, transportation, manpower, lighting arrangement to be maintained during execution of works at night.
- c) For rapid execution of the Work, the Contractor has to arrange their own tower crane, batching plant and others machinery, tools and tackles needed for the work as given in the submitted PQ document.

- d) As directed by Engineer Proper barricading to be made so that surrounding area free from disturbances. The specifications of the barricading to be got approved by Engineer. External face of barricading to be nicely painted and written the name of the Employer, Consultant and Project only. No sign board of contractor is allowed unless permitted by engineer in writing.
- e) For diversion of under ground services proper arrangement to be made by the Contractor with the approval of Engineer.

B) Statutory Requirements

The Contractor is responsible for obtaining approval from local electrical inspector, water & Sewer line connection, tree cuttings, permission for borewell and any other local Statutory requirements, if any, from local Authorities and any structure made / to be made of work, which is not in the approved plan, by the local authority. All the statutory expenditure incurred towards payment to the local body for getting local Electric inspection, sewer line and water supply connection for the Employer will be reimbursed on the production of proof of payment. The Contractor will be promptly extended all assistance in this connection.

39.2.1 Contractor's Working Area

Suitable working area will be provided by the Engineer to the Contractor. The Contractor may have to carry out some cutting / filling work for making his working area. The cost of all such Works shall be deemed to have been included in the rates and prices quoted for the Works and no extra payment shall be made on this account.

39.2.2 Contractor's Temporary Structures

The Contractor may, at his own expense and subject to the approval of the Engineer and statutory authorities, construct offices, stores, Workshop in the area allocated to him and remove the same as per the orders of the Engineer on completion of Works. The Contractor shall furnish such details of his Temporary Works as may be called for by the Engineer and the Contractor shall satisfy the Engineer as to their safety and efficiency. Engineer may direct those Temporary work which he considers unsafe or inefficient be removed and replaced in a satisfactory manner. The Contractor shall immediately follow Engineer's directions/instructions.

The Contractor shall make his own arrangement at his own expense for labour camp / accommodation of his labour and staff and their

conveyance to Site as no workers/ staff shall unless with the specific approval of the Engineer be allowed to stay within the Site. Gate passes shall be issued by the Engineer to authorise the Contractor's staff and workers to enter the Site.

39.2.3 Procurement of Various Materials

The Employer will not supply any construction materials required for the Works under this Contract. The Contractor must, therefore, make his own arrangements for timely procurement of various materials including steel and cement. Prior approval of each and every material including steel, cement, aggregate, bricks etc or any other fittings & fixtures shall be taken from the Engineer before its procurement to site. However, in case of excessive delay in procurement of various materials, the Engineer may also take decision of procurement of material directly and the cost will be recovered from the contractor.

39.2.4 Water Supply & Power Supply

The Contractor shall make his own arrangement for water supply at Site for drinking as well as construction purposes at his own cost. The Contractor shall also make his own arrangements for power supply at Site for construction, testing & commissioning of all services and general use at his own cost.

Non-availability of power supply and/or water from whatever source shall not entail any additional claims or extension of Contract period in this account. The contractor will provide water & electricity to the Engineer's office free of cost for the required quantity by the engineer's site office.

39.2.5 Site office

A reasonably furnished site office accommodation having a sample room, A.C. meeting room , staff rooms along with toilets & pantry with file storage facility along with computers & printers and its consumables, a telephone with STD facility to be made available as per requirements given by the Engineer. Electricity & drinking water will have to be provided by contractor at his own cost for the site office.

In case suitable existing building/accommodation is available at site, the same may be furnished as above with the consent of HSCC.

39.2.6 Temporary Fencing

The Contractor shall at his own expense, erect and maintain in good condition temporary fences all around the working premises as per approved specification by Engineer. After the successful completion of work all the temporary fencing will be dismantled / removed by contractor and all the dismantled / removed material from here shall be the property of the contractor.

39.2.7 Mix Design of Concrete

The contractor shall carry out the mix design of relevant item of concrete from a reputed institution/laboratories as approved by Engineer at his own expenses within 15 days from notification of award. Prior approval of engineer is to be taken before the samples (Cement, Coarse & fine aggregates) sent to the Institution for Mix design. The decision of engineer shall be final and binding for above. The design mix required may with or without admixtures.

39.2.8 Testing of Materials

All materials used in the works shall be subject to inspection and test. The Contractor shall carry out sampling of such materials and making of concrete test cubes as per the appropriate Indian Standards and as directed by the Engineer. The contractor shall deliver the samples of materials and concrete test cubes to the site office of the Engineer at site office/Site Testing Lab in a manner as directed by engineer who will inspect the same and then order for testing of materials and concrete cubes..

The Contractor shall arrange for testing of materials normally in site testing lab but samples may be sent outside testing laboratories if necessary. The delivery of the samples shall be undertaken by the Contractor. The cost and charges for sampling of materials and concrete cubes and delivering the same to the office of the Engineer and/or other places including all incidentals in connection with the same as directed by the Engineer and the testing charges there of shall be borne by the Contractor and shall be deemed to be included in the rates and prices quoted in the Bill of Quantities. The results of the tests carried out shall be binding on the Contractor who shall comply with any rectification measures that the Engineer may deem fit and order to be executed by the Contractor as a result of testing.

39.2.9 Approval of Samples prior to use

The Contractor shall submit the samples of all materials (whether in list of approved make or not in list of approved make) he proposes to use in the Works for prior approval of the Engineer. A sample room shall be maintained at Site in which all approved samples shall be kept for comparison with materials being used at Site.

39.2.10 Bar Bending Schedule

Contractor shall prepare bar bending schedules in the prescribed proforma as approved by the Engineer for prior approval of the Engineer. However, the approval does not relieve the Contractor from his liability for bending, placing and binding reinforcements as per the approved drawings.

39.3 (a) Working drawings/ Shop drawings/Design :

The drawings supplied by the engineer have been listed in the tender documents.

These drawings are indicating for the purpose of detailing the intent and requirement of the contracts. The contractor shall take into consideration any space allocated for equipments before ordering them to ensure that the equipment would fit in the space provided with necessary clearances required as per the relevant standard/ manufactures recommendations.

Structural and architectural drawings will be provided by HSCC. However to ensure the uninterrupted progress of work and timely completion, the contractor will do further detailing as per site requirement at his own.

Detailing and shop drawings of all services will have to be done by the contractor based on the schematic and other details provided by HSCC or local authorities. The work will be executed by the contractor based on the approved drawing from the concerned authority and accordingly contractor will be responsible for obtaining final NOC/clearance from concerned authority.

The contractor shall submit to the Engineer for approval details of all proposed equipments, accessories, equipment characteristics and capacity details of all equipment, accessories and devices etc. as per the specifications and required by the Engineer.

In case, there is any delay/default in preparation, design, quality, submission, etc. of any drawings and design, viz. Shop drawings, as made

drawings, etc., the Contractor may be asked by HSCC to change the design consultant immediately or get the same done on the risk and cost of the Contractor.

These drawings and details shall also contain details of construction ,size, arrangement, operating clearances, performance characteristics and capacity of all items of equipments and also details of all related items of work by other discipline.

All drawings shall be signed by authorised contractor's representative with name, seal and date before submission to Engineer.

39.4 "AS MADE" Drawings

The Contractor shall supply two complete sets of "As Made" Drawings on polyester tracing film 75 micron thick and also on computer pen drive and three prints showing details of all the Works as executed. The drawings and prints shall be delivered to the Engineer within one month of completion of the various Sections of the work or at such other times as directed by the Engineer. The drawings shall be fully dimensioned with the Engineer's standard title block or as approved by the Engineer. The cost of making the "As Made" drawings shall be deemed to be included in the rates quoted in the Bill of Quantities.

39.5 Monthly Progress Photograph

The Contractor shall supply to the Engineer a pen drive, negative and three prints of colour progress photographs in good quality album with two copy at site and one copy at HSCC Head Office of such portions of the work in progress or completed works every month end or as directed by the Engineer. The pen drive, negative and the photographs shall become the property of the Employer. The photographs shall be of approximate size 169 mm x 115 mm each. The photographs shall be mounted in albums approved by Engineer and shall be suitably inscribed and captioned. The albums in a chronological order shall be handed over to the Engineer. No pen drive prints or the negatives may be supplied to any persons without the authority of the Engineer. All photographs to be taken from digital camera and software to be provided for transformation it to the computer. The photographs may be up to 100 nos. per month as required by engineer. An amount of Rs. 10,000/- will be deducted from running bill for non-submission of photographs as required.

39.6 Programme of Work and Progress Reports

The Contractor shall submit to the engineer within two weeks of the Award of contract, six copies of detailed schedule showing in an approved form the estimated dates of commencement and completion of different parts of the works including the expected dates of the various sections of the work. The detailed schedule shall be such as it can be updated monthly or as directed by the Engineer. Six copies of the revised Schedule shall be supplied to the Engineer, as and when it is revised. The schedule will be in two parts. The first part will consist of schedule for detailing, preparation & submission of shop drawings and the second part shall consist of schedule for execution. The schedule will be only detailing of original schedule submitted along with tender.

The Contractor shall submit to the Engineer before the second day of every week, a progress report for the preceding week showing the upto date progress and progress during the preceding week on all items of each section of the Works in relation to and in consideration of the detailed Schedule.

39.7 Metric Units

Metric units have been used in the specifications and on all the drawings.

If any materials described in the Contract or ordered by the Engineer are described by dimensions in the metric units and the Contractor can not in accordance with the Contract, procure such materials in the measure specified in sufficient time to avoid delay in the performance of his other obligations under the Contract, but can obtain such materials in other measure to dimensions approximating to those described in the Contract or ordered by the Engineer, then the Contractor shall henceforth give notice to the Engineer of these facts stating the dimensions to which such materials are procurable in the other measure. As soon as practicable after the receipts of any such notice, the Engineer shall give an order to the Contractor which shall either

- (a) Direct the Contractor to supply such materials to the dimensions stated in his said notice to be procurable instead of the dimensions described in the Contract or originally ordered by the Engineer, or
- (b) Direct the Contractor to make some other variation whereby the need to supply such materials to the dimensions described in the Contract or originally ordered by the Engineer will be avoided.

39.8 Field Materials Testing Laboratory

39.8.1.1 The Contractor shall provide, furnish, man and maintain a laboratory at his own cost for the Testing of bricks, concrete cubes, construction materials,

soil and any other materials in accordance with (Indian Standards and CPWD norms etc.) the directions of the Engineer.

Whenever directed by the Engineer, the Contractor shall permit other Contractor(s) working for the Employer on the project to use the field-testing laboratory on payments as fixed by the Engineer. Such payments will be made directly by the other Contractor(s) using the laboratory.

39.8.1.2 The laboratory shall be equipped and manned by the Contractor at his own cost with all necessary apparatus to carry out the above mentioned tests in accordance with relevant Indian Standards or equivalent approved Standards.

i) Cement testing:

Tests for fineness, Strength, setting time and soundness in accordance with IS:4031.

ii) Concrete Testing:

Test for workability, proportions, density and strength in accordance with IS:516 and 1199. In particular the cube testing machine shall be capable of exerting a slowly applied force up to 200 tonnes and the platens shall be suitable for crushing both 150mm and 200 mm cubes. A Vibrating table of suitable design shall be provided for compaction of cubes.

iii) Aggregate Testing:

In accordance with IS: 2386 (part I to VIII) for the following tests on both fine and coarse aggregates:

- a. Sieve analysis
- b. Determination of bulk density and voids on fine aggregates only:
- c. Determination of moisture content, specific gravity and absorption on coarse aggregates only:
- d. Determination of specific gravity and absorption

39.8.1.3 The contractor shall carry out inspection, testing, checks and also shall maintain records of inspection, testing & checks of material, works and activities related to construction works in the ISO 9001 quality system formats, checklists etc. to be given by the Consultant during execution period.

After getting approval from the Engineer, the contractor shall print all forms, tables, formats etc. as required at his own cost.

- 39.8.1.4 The laboratory shall be connected to the main water and electricity Services. It shall also be supplied with portable gas equipment.
- 39.8.1.5 On completion of the Maintenance period, the laboratory is to be dismantled and removed from Site. The dismantled materials and equipment shall be the property of the Contractor.

40.0 Rates/Prices

The quoted rates/prices for the items shall be complete in all respect including all labour, material, plant and machinery, tools and tackles, batching plant and pumps for RCC work, including water & electricity, all taxes, cess, duties, levies, octroi, statutory levies applicable from time to time and considering others conditions as specified in SCC etc. The Contractors attention is invited towards different floor finishes and their respective finish levels as indicated in the architectural drawings, and nothing extra shall be payable for additional mortar bed required to achieve uniform finished levels. The Contractor should quote his rates/prices accordingly for the complete items in all respects.

41.0 Compliance of Statutory Obligations for obtaining completion certificates :

The Contractor shall comply all the statutory obligations and obtain all required clearances to implement the project without any financial repercussions to HSCC/Employer and ensure all follow up actions with the local authorities in this respect for smooth completion of the project. All statutory charges to get any NOC, clearances from local authorities to be obtained by the contractor and the charges towards the NOC shall be reimbursed after submitting the bills/documentary evidences along with RA bills/final bill. The contractor is required to obtain all NOC, completion & Occupancy certificates from respective local bodies as under:

i) Pollution control Board, ii) Environment clearances, iii) NOC form fire department, iv) Lift licence, v) Chief Electrical Inspector CEA, vi) Municipal authority/corporation vii) Airport Authority, viii) Tree cutting, ix) Explosive department, x) Jal Board/Municipal authority for water and sewer connection, xi) And any other statutory requirement to occupy the building and run the services in all respect. Contractor shall organise all inspections of concerned authorities & obtain the NOC's within the time for completion.

The contractor is required to submit the relevant drawings like completion Drawings and any other statutory documentary requirements of local bodies in copies as per requirement to obtain the above etc. at their own cost.

42.0 Incentive for early completion

In case, the Contractor completes the work in all respects ahead of the scheduled completion time, a bonus @ 1% (One Percent) per month computed on per day basis on the Award value, shall be payable to the Contractor, subject to a maximum limit of 5% (Five Percent) of the Award value. The amount of bonus, if payable, shall be paid along with final bill after completion of work.

43.0 Un priced Bids

The un-priced copies of the purchase orders of major items/equipments and of subcontracts placed by the Contractor shall be furnished to the Engineer.

44.0 Milestone

The contractor shall submit mile stones for procurement of all the bought out items and completion of all the major activities including details of manpower proposed to be engaged for each activity.

45. Approval of Make :

- a. Engineer may add any equivalent approved make with price adjustment.
- b. In case of non availability / monopolistic attitude of any approved make, the Engineer's decision to introduce any other make, with suitable price adjustment, shall be final.
- c. Approved make of same item under different sub heads are interchangeable.
- d. The same criteria for approval of electrical, HVAC, plumbing, fire fighting works and other specialised agency will be followed, as per undertaking submitted by the Contractor during pre qualification.

46. RCC WORKS

Suitable batching plant with pumping arrangement required for the project to be installed at site for the all RCC works. In case break down of the batching plant suitable alternative arrangement like RMC to be made by

the contractor to avoid any interruption in RCC work. The alternative arrangement of RMC plant with engineer's advance approval of design mix to be kept ready for such emergency so that RCC can be readily available within 12 hrs of break down of batching plant.

47. Extra/Substituted items: The items shall be analysed based on the following norms :

- a) Any extra item/non schedule item will first be analysed based on the similar items existing in the BOQ under any sub heads. Components of any similar item nearest to the non schedule item will be decomposed to get the various sub components of material and manpower. The item will again be composed on the basis of requirements taking other components from DAR and rates.
- b) Components of material, manpower, wastage, profit, sundries, etc will be taken from CPWD latest DAR
- c) In case rates for extra / substituted item of work cannot be worked out as above, the rates entered in the DSR 2007 modified by tender percentage determined on contract price for the items based on DSR 2007 and accepted rates for the items. The individual item of work not available in DSR 2007, the final rates accepted shall be considered for the item to arrive at tender percentage by considering these rates in both DSR and Accepted contract price.
- d) In absence of similar item and In case the components are not available in DAR, the same will be taken from actual observations made and recorded at site. A register to be made for such actual observations to be jointly signed each day of observations and put up to the engineer along with analysis for approval.
- e) Actual market rates of the material and bought out items at the time of execution of activity will be verified by the site in charge of HSCC based on the rates submitted by the contractor along with his claim for extra items after due consideration for all the project discount on the market rates of any item.
- f) Contractor's profit on extra items will be as per CPWD norms or 15% only in case the item in any forms is not available in DAR.
- g) The analysis of items enclosing actual observation sheets, photocopy of pages of DAR, original paid bills and vouchers to be submitted at site

h) Labour rates will be taken from local body /collector rates of that area for minimum wages

The claim and analysis will not be accepted unless proper analysis, complete with supporting documents, are submitted.

No extra item will be paid unless prior administrative approval of Engineer is taken in writing for its execution with tentative rates and total cost involved.

48. Financial capability: The contractor must have the financial capability to continue the work uninterrupted at site in case the payment is delayed upto 4 (four) months due to any reason.

No time extension will be considered for delay in payment upto four months.

49. Details required along with submission of running/final bills

Clause 33.0 under Certificates & Payment contractor is required to submit following details/documents along with every running/final bill without which bills will not be processed.

1. Bills of every section of work as provided in BOQ to be prepared separately and submitted all together. In case there is no billable amount of any section of work, the same should be clearly indicated zero value during the period of bill.
2. Complete measurement details along with location of each measurement should be clearly indicated.
3. Authorised representative of contractor with name & seal to sign on each page of bill submitted.
4. Carryover and brought forward for each & every quantity to be indicated in the bill.
5. The running bill should contain the measurement of items executed during the period of bill. Full measurement may be given in pre final/ final bill. The measurement of all concealed items should be made before covering them.
6. All the copy of challan of materials, bills and test certificates, specially of the items on which secured advance has been claimed, steel, cement, sand, aggregates, bricks, any plumbing material, Aluminium, waterproofing material etc. should be submitted alongwith the every bill.

Actual measurement of secured advance shall be submitted for verification of Engineer. Rate of secured advance material shall be verified by Engineer independently. Secured advance on approved make material will only be payable.

7. Manufacturer Catalogue for aluminium and other items for verification of standard unit weight and checking that material is as per specification should be submitted.
8. Weight slip of reinforcement steel and aluminium and any other material as required by Engineer Representative from authenticated source like Dharam Kanta should be submitted.
9. The computerised soft copy of the entire bill shall be submitted alongwith the bill.
10. Correction as made by Engineer Representative should be incorporated by the contractor and corrected bill in three copy should be submitted for payment. Date of submission of bill will be reckoned from the date of submission of corrected bill.
11. Material consumption statement should be submitted alongwith every bill.
12. Bill should be indexed properly and each page and correction if any should be signed and stamped by the authorised representative of the contractor and acceptance should be given.
13. Copy of challan(s) of submission of PF & ESI and any other relevant as required from time to time should be submitted.
14. Contractor shall maintain a check list at site duly marked on drawing for the items/works already measured till previous bill should be submitted alongwith the bill.
15. Register for steel, cement, water proofing material, concealed item etc. should be maintained at site in the standard format of CPWD duly modified by Engineer Representative as per requirement. Monthly statement should be submitted along with the bill.
16. Power of attorney of authorized person on behalf of contractor to be submitted. Contractor must ensure that all papers /Measurement book to be signed by authorized person with measurement date, date of start & date of completion etc.

17. Copy of duly certified bank guarantee from bank, performance BG, insurance policies as required in terms of contract to be enclosed with first RA bill.
18. All overwriting, alterations have been countersigned by the authorized person with date.
19. Approval of extra item if any conveyed to be enclosed.
20. Contractor must ensure, in case of time extension, confirmation of extended validity of insurance, performance BG upto Defect liability period as per contract and a copy of approved time extension to be submitted.
21. Contractor must authorise their representatives competent for verification of measurement at site and these person should be available at site.
22. Contractor is required to submit all test certificates of items claimed in bill for payment or for secured advance payment. Any item not meeting the test criteria's will not be considered for payment.
23. All the pages and enclosures of bills to be stamped with name and designation of the person with full signature of contractor's and HSCC's site incharge before submission to the engineer.

In addition to above any other document and details as required for checking, verification and timely processing of bill.

50.0 Terms and Conditions of Pre-qualification

All the terms and conditions & prequalification criteria(s) of Prequalification document of invitation of prequalification are to be strictly complied during the tenancy of the contract.

ADDITIONAL SPECIFIC CONDITIONS OF CONTRACT AND SPECIFICATIONS

(A) RELATING TO CIVIL, PLUMBING & FIRE FIGHTING WORKS

1.0 General

1.1 The following Additional Specific Conditions and specification shall be read in conjunction with General Conditions of Contract and Specific Conditions of Contract. If there are any provisions in these Additional Specific Conditions which are at variance with the provisions in the above mentioned documents, the provisions in these Additional Specific Conditions shall take precedence.

1.2 These additional specific conditions and specification shall be considered as an extension and not as a limitation of obligation of the preference.

* The CPWD General Specification for Electrical works: Part V Down Comer System for fire fighting-1985. Termination used in the bid shall also be accordance with CPWD.

* For items not covered in CPWD Specification, the work shall be done as per the latest relevant IS Code of practice.

* For items not covered by any of the above the installation shall be done as directed by the Engineer and as per sound engineering practices.

2.0 Scope of Contract

2.1 The scope of work covers the supply, erection, testing and commissioning of the Civil, Plumbing, Fire Fighting & Electrical Systems, Air- conditioning & Landscaping works which also includes all detailed shop drawings, testing and commissioning of components and accessories.

* Civil works, plumbing & Fire Fighting works, Fire Alarm System.

* Electrical works.

2.2 The work shall be carried out in conformity with the plumbing drawings and the requirement of architectural, electrical, structural, and other specialised service drawings by the agency approved by Engineer.

2.3 The Contractor shall make provision of hangers, sleeves, structural openings and other requirements well in advance to hold up progress of the construction schedule.

2.4 The said Contract comprises of furnishing of all materials, equipment, labour & transportation etc. necessary to render the installation fully operational as per the intent of specification and drawings, including any necessary adjustment or corrections. The installation shall be all in conformity with local laws covering such installation.

3.0 Contract Drawings

3.1 The drawings issued with the Bid are diagrammatic only and indicate the extent and general arrangement of the installation. Drawings shall not be scaled.

3.2 The Contractor shall follow the Bid drawings for preparation of his detailed sanitary, plumbing & fire fighting & Shop drawings and for subsequent installation work. He shall check the drawings of other services to verify spaces in which his work will be installed. The Contractor shall examine all Architectural, Structural, Plumbing and other services drawings before starting the work and report to the Engineer any discrepancies and obtain clarification. Any changes found essential to coordinate installation of this work with other services, shall be made with prior approval of the Engineer.

4.0 Shop Drawings

4.1 With in two weeks after Award of the Contract, the Contractor shall furnish for approval of the Engineer, three sets of detailed sanitary, plumbing, fire fighting (external & internal), Pump room & Shop drawings of all equipment and materials required to complete the work as per specifications. These drawings shall contain details of construction, size, arrangement, operating clearances, performance characteristics, and capacity of all items of equipment, as also the details of all related items of work of other trades. All shop drawings to be made in accordance with latest fire safety norms & to be got approved by the authorities before it is finally approved by Engineer before start of work.

4.2 All drawings necessary for assembly, erection, maintenance, repair and operation of the equipment shall be furnished and different parts shall be suitably numbered for identification and ordering of spare parts.

4.3 When the Engineer makes any amendments in the above drawings, the Contractor shall supply fresh sets of drawings with the amendments duly incorporated, along with the drawings on which corrections were indicated.

- 4.4 No material or equipment may be delivered or installed at the job Site until the Contractor has in his possession, the approved Shop drawings for that particular material or equipment.
- 4.5 After approval of the drawings by the Engineer, the Contractor shall further furnish six sets of Shop drawings for the exclusive use of and retention by the Engineer.
- 4.6 Approval of drawings by the Engineer shall not relieve the Contractor of any part of his obligation to meet all the requirements of the Contract or of the correctness of his drawings. The Engineer's approval of specific item shall not mean the approval of the assembly of which it is a component. The Contractor shall be responsible for and is to bear the cost for all alternations of the works due to discrepancies or omission in the drawings or other particulars supplied by him, whether such drawings have been approved by the Engineer or not.
- 4.7 Where the work of the Contractor has to be installed in close proximity to, or will interfere with the work of other trades, the Contractor shall assist in working out the space conditions to make a satisfactory adjustment. If so directed by the Engineer, the Contractor shall prepare composite working drawings and sections to a suitable scale not less than 1:50, clearly showing how his work is to be installed in relation to the work of other trades. If the Contractor installs his work before coordinating with other trades, or so as to cause any interference with the work of other trades, he shall make all the necessary changes without extra cost.
- 4.8 All shop drawings and detailed drawings shall be made as per the requirements of the Local Authorities and tender drawings incorporating all the latest regulations and requirements. No separate drawings shall be issued for making the shop drawings.

5.0 Samples and Catalogues

- 5.1 Prior to ordering any equipment/ material/ system, the Contractor shall submit to the Engineer, the catalogues, along with samples from approved list of manufacturers. No material shall be procured prior to the approval by the Engineer.

5.2 Approval of Materials

All materials used on the Works shall be new and of the best quality available, conforming to the relevant specifications and as per good Engineering practice. Prior approval shall be obtained in writing from the

Engineer for all materials proposed and when necessary, approved sample duly identified and labelled shall be deposited with the Engineer and shall be kept at Site. List of approved make indicates make / manufacturer generally acceptable but final choice of make / manufacturer of material & models shall be with the Engineer.

6.0 Material and Equipment

- 6.1 All material and equipment shall conform to the relevant Indian Standards.
- 6.2 Where interfacing occurs, equipment shall be mutually compatible in all respects.
- 6.3 Where an item of equipment, other than as specified or detailed on the drawings, is approved by Engineer, requires any re-design of the structure, partitions, foundation, piping, wiring or any other part of the mechanical, electrical or architectural layout, all such re-design, and all new drawings and detailing required therefore, shall be prepared by the Contractor at his own expense and approval obtained by the Engineer.
- 6.4 All similar equipment, materials, removable parts of similar equipment etc. shall be inter-changeable with one another.

7.0 Conformity with Statutory Acts, Rules and Standards

- 7.1 The installation shall be in conformity with the Bye-laws Regulations and Standards of the local authorities applicable to the installations. But if the specifications and drawings call for a higher standard of materials and/or workmanship than those required by any of the above regulations and those required by any of the above regulations and standards, then the specifications and drawings shall take precedence over the said Regulations and Standards.
- 7.2 However, if the drawings or specifications required something, which violates the Byelaws and Regulations, then the Bye-laws and Regulations shall govern the requirement of this installation.
- 7.3 Indian Standards : The System / Components shall conform to relevant Indian standards wherever they exist and to the national Building Code Amended up to date.
- 7.4 Nothing in these Specification shall be constructed to relieve the contract of his responsibility for the design. Manufacture and installation of equipment with all its accessories in accordance with applicable statutory regulations and safety codes in force.

8.0 Technical Data

8.1 Deleted

9.0 Manufacturer's Instructions

9.1 Where manufacturers have furnished specific instructions relating to the materials and equipment used, covering points not specifically mentioned in these documents, manufacture's instructions shall be followed.

10.0 Training and Operating Instructions

10.1 If required by the Engineer, the Contractor shall at no extra cost train members of the maintenance staff either at his or the subcontractor's workshop or at such other place or places as may be considered suitable by the Engineer.

10.2 Upon completion of all work and all tests, the Contractor shall furnish the necessary skilled labour and helpers for operating the entire installation for a period of fifteen (15) working days. During this period, the Contractor shall instruct and train the Engineer's representative in the operation, adjustments and maintenance of all equipment installed.

10.3 The Contractor shall submit to the Engineer a draft copy of comprehensive operating instructions and maintenance schedule for all systems and equipment including in this Contract. This shall be supplemented, not substituted, by manufacturer's operating and maintenance manuals. Upon approval of the draft, the Contractor shall submit to the Engineer four (4) complete bound sets of operating and maintenance schedules along with manufacturers printed literature.

11.0 Inspection and Testing

11.1 The Engineer reserves the right to request inspection and testing at manufacturer's Works at all reasonable times during manufacture of items for this Contract.

11.2 The Engineer or his authorised representative shall have full power to inspect the materials and workmanship at the Contractor's Works or at any place from which the materials or equipment is obtained. Acceptance by the Engineer of any material or equipment shall in no way relieve the Contractor of his responsibility for meeting the requirements of the specifications. All incident expenditure like travelling, boarding and lodging etc shall be born by the contractor.

- 11.3 Routine and typical tests for the various items of equipment shall be performed at the Contractor's Works and test certificates furnished. If required by the Engineer, the Contractor shall permit the authorised representative of the Engineer to be present during any of the tests.
- 11.4 After installation has been virtually completed, the Contractor shall carry out under the direction and in the presence of the representative of the Engineer such tests and inspections as have been specified, or as the representative shall consider necessary to determine whether or not the full intent of the requirements of the drawings and specifications have been fulfilled. In case the work does not meet the full intent of the drawings and specifications and further tests are considered necessary, the Contractor shall carry them out and bear the expenses thereof.
- 11.5 The Contractor shall provide all necessary instruments such as Theodolite, Dumpy level, steel tapes, weighing machine, plumb bobs, spirit levels, hammers, micrometers, thermometers, hydraulic testing machine, smoke test machine and labour for testing. The Contractor shall make adequate records of the test procedures and readings, shall repeat any tests requested by the Engineer and shall provide test certificates signed by an properly authorised person. Such test certificates shall cover all Works. All such equipments shall be tested for calibration at any approved laboratory.
- 11.6 If test fail to demonstrate the satisfactory nature of the installation or any part thereof, then no claims for the extra cost of modifications, replacement or retesting will be considered. The decision of the Engineer shall be regarded as final as to what constitutes a satisfactory test.
- 11.7 The above general requirements as to testing shall be read in conjunction with any particular requirements specified elsewhere.

12.0 Test Certificates

The contractor shall submit test certificates for all the materials / systems. These shall be issued by a government recognized inspection office certifying that all Equipment, Materials, Construction and function are in agreement with the requirements of these specification and accepted standards.

13.0 Performance Guarantee/Retention Money

- 13.1 It is clearly understood that the specifications, drawings, schedule of quantities for fire fighting system are for bidder's guidance only. The bidder shall carry out necessary calculation and provide alternative equipment required to achieve the specified level of fire fighting required

for human safety. Complete sets of Architectural Drawings are available at site in the Engineer's office and reference may be made to these drawings as required for calculations or for other details. The contractor shall also guarantee that performance of various equipments, individually, shall not be less than, the quoted ratings.

14.0 Quiet Operation and Vibration

14.1 All equipment shall operate under all conditions of load without any sound or vibration, which is objectionable in the opinion of the Engineer. In case of rotating machinery, sound or vibration noticeable outside the room in which it is installed or annoyingly noticeable inside its own room, shall be considered objectionable. Such conditions shall be corrected by the Contractor at his own expense.

15.0 Accessibility

15.1 The Contractor shall locate all equipment, which must be serviced, operated or maintained in fully accessible positions. The exact location and size of access panels, required for each valve or other devices requiring attendance, shall be finalised and communicated well in time, to be provided in the normal course of work, failing this, the Contractor shall make all the necessary repairs and changes at his own expense.

16.0 Electrical Installation

16.1 The electrical installation shall be in total conformity with the control wiring drawings prepared by the Contractor and approved by the Engineer & shall be connected and tested in the presence of an authorised representative of the Contractor and of the Engineer.

16.2 It is to be clearly understood that the final responsibility for the sufficiency, adequacy and conformity to the Contract requirements of the electrical installation work lies solely with the Contractor.

17.0 Completion Certificate

17.1 On completion of the installation, a certificate shall be furnished to the Engineer, by the Contractor, countersigned by the licensed supervisor under whose direct supervision the installation was carried out. This Certificate shall be in the prescribed form as required by the local authority. On the basis of this certificate, the Contractor shall arrange for inspection of installation by the concerned local authorities.

17.2 The Contractor shall be responsible at his own cost for getting the installation duly approved by the Authorities concerned.

18.0 Completion Drawings

18.1 At the completion of the work in all respects, the Contractor shall at his own cost submit to the Engineer 4 (four) sets of layout drawings drawn at the approved scale indicating the installation. These drawings shall clearly indicate the complete plant layouts, and piping layouts, location wiring, exact location of all the concealed piping, valves, controls, wiring and other services. The Contractor shall also submit 4(four) sets of consolidated control diagrams, technical literature on all automatic controls and complete technical literature on all equipment and materials. The Contractor shall frame under glass, in the plant room all consolidated control diagrams and all piping diagrams.

19.0 Rates

19.1 Quoted rate includes any materials, equipment, appliances and incidental work not specifically as being furnishing or installed, but which are necessary and customary to make a complete installation.

19.2 The Contractor shall check at all stages and supervise at the point of connection the associated civil, electrical and plumbing works like underground and overhead tanks, power supply and installation of makeup water connection, drain connection in the fire fighting tanks and vicinity of plant room etc. In case of any discrepancy, all rectifications etc, required as a failure to do so, shall be carried out by the Contractor at his own expenses.

20.0 Check List

20.1 The Contractor shall provide to the Engineer 4(four) copies of a comprehensive maintenance checklist and shall post a copy of it in the Plant Room. The checklist shall be a list of each piece of equipment in this Contract, and shall provide a space for each of the next fifty-two weeks to record the maintenance provided to and status of various equipment. Each month at the time of inspection, the Contractor shall certify on this check list that he has examined each piece of equipment and that, in his opinion, it is operating as intended by the manufacturer, and that all necessary intention has been performed.

21.0 Repairs

All equipment that requires repairing shall be immediately serviced and repaired. During the maintenance period, all parts and labours shall be furnished at no extra cost to the Engineer.

22.0 Control System

During the maintenance period, once each month the Contractor shall check all controls in various areas to ensure that these are functioning as designed. This shall apply to all pressure switches and pressure gauges, contactors, relays, controller switches, high and low pressure cut-outs etc.

23.0 Reference Points

- 23.1 Contractor shall provide permanent bench marks, flag tops and other reference points for the proper execution of work and these shall be preserved till the end of Works.
- 23.2 All such reference points shall be in relation to the levels and locations, given in the Architectural and plumbing drawings.

24.0 License and Permits

- 24.1 Contractor shall hold a valid plumbing, electrical, HVAC license issued by the Municipal Authority or other competent authority under whose jurisdiction the work falls.
- 24.2 The contractor has to take all the approvals of local bodies for all the addition/deletion over the approved building plans which are to be given by HSCC. The documents/drawings to be prepared and submitted in the manner desired by them after the same is approved by HSCC. Contractor has to take approvals of entire/Part works if required before start of works. Contractor will be held responsible if any work at site is carried out without having approval of municipal or local bodies.
- 24.3 Contractor shall keep constant liaison with the competent Municipal or other authority and obtain approvals for all drainage and water supply works carried out by him.
- 24.4 Contractor shall obtain from the competent Municipal Authority completion certificates with respect to his work as required for occupation of the building.
- 24.5 Before start of HVAC, Electrical, ATT, Water proofing, Fire Fighting, Fire alarm system, PA System, EPABX System, Horticulture Works etc., the contractor must take approval of agencies from Engineer.
- 24.6 Any fees deposited in connection with the work on behalf of the Client in Statutory bodies, Corporations, Government departments, etc. shall be paid by the Contractor and the same shall be reimbursed on production of original vouchers. Necessary endorsement / application if required shall be arranged from the Employer by the Engineer.

25.0 Cutting and Making Good

25.1 No structural member shall be chased or cut without the written permission of the Engineer.

26.0. Operation and Running of entire system

The contractor shall pay for and arrange for operation & running of entire sanitary, plumbing and fire fighting system including pumps and RO plant, solar water heating system etc. for a minimum period of one month after satisfactory completion of work as desired by Engineer. Cost of operation & running of entire system including required material e.g fuel, consumables, tools & tackles, requisite manpower etc. shall be deemed to be included in the contract price and nothing extra shall be paid.

B) RELATING TO ELECTRICAL INSTALLATIONS

1.0 General

1.1 The following Additional Specific Conditions shall be read in conjunction with General Conditions of Contract and Specific Conditions of Contract. If there are any provisions in these Additional Specific Conditions which are at variance with the provisions in the above mentioned documents, the provisions in these Additional Specific Conditions shall take precedence.

2.0 Regulations and Standards

2.1 The installations shall conform in all respects to Indian Standard Code of Practice for Electrical Wiring Installation IS : 732-1989 and as per CPWD General Specification for Electrical Works (Part I, II & IV). It shall also be in conformity with the current Indian Electricity Rules and regulations in so far as these are applicable to the installations. Wherever these Additional Specific Conditions calls for a higher standard of material and/or workmanship than those required by any of the above regulations, then this Additional Specific Conditions shall take precedence over the said Regulation and Standards. External works & fire detection & alarm system works to be done as per CPWD specification & relevant IS codes.

3.0 Rates

3.1 The rates bided shall be for complete items of work inclusive of all taxes, statutory charges and all other charges for items contingent to the work, such as, packing, forwarding, insurance, freight and delivery at Site for the materials to be supplied by the Contractor, watch and ward of all materials for the Internal & external, Electrical Installation testing & commissioning work including water & power for successful installation, testing & commissioning work at Site etc.

4.0 Completeness of Bid

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the Bid rates and prices, whether such items are specifically mentioned in the Bid documents or not.

5.0 Works to be done by the Contractor

5.1 Unless and otherwise mentioned in the Bid documents, the following works shall be done by the Contractor, and therefore their cost shall be deemed to be included in their rates and prices:

- i. Foundations for equipments and components where required, including foundation bolts
- ii. Cutting and making good all damages caused during installation and restoring the same to their original finish
- iii. Sealing of all floor openings provided by him for pipes and cables, from fire safety point of view, after laying of the same
- iv. Painting at site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/ distribution gear items, cubicle switch board etc. and erection, shall however be rectified to the satisfaction of the Engineer
- v. Testing and commissioning of complete installation

6.0 Tools for Handling and Erection

6.1 All tools and tackles required for handling of equipments and materials at Site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the Contractor.

7.0 Terminology & Scope

7.1 Terminology & scope for this project shall be as per CPWD Specification for Electrical Works (Part I - Internal) - 1994 & External Works - Part II - **Latest.**

7.2 Measurement

Measurement shall be as per CPWD specifications Part – I (Internal) & Part - II (External) unless otherwise specified in the technical specifications / BOQ.

8.0 Drawings

8.1 The drawings indicate the extent and general arrangements of the fixtures, controlling switches, wiring system etc. and are essentially diagrammatic. The drawings indicate the points of termination of conduit runs and broadly suggest the routes to be followed. The Contractor shall submit six

sets of working electrical drawings based on tender drawing including reflected ceiling plan coordinating other essential building services for HSCC approval. Contractor has to make necessary changes if any as per comments given by HSCC before execution. The work shall be executed as indicated in the approved drawings, however any minor changes found essential to co-ordinate the installation of this work with the other trades shall be made without any additional cost of owner. The drawings are for guidance of the contractor and exact locations, distance and levels shall be governed by the building. The Contractor shall examine all architectural, structural, plumbing and sanitary & electrical drawings before starting the work and report to the Engineer any discrepancies, which in his opinion appear on them and get it clarified. Contractor shall not be entitled to any extras for omissions or defects in electrical drawings or when they conflict with other services work.

9.0 Conduit/ Trunking Layout

9.1 Prior to the laying of the conduits and trunking, the Contractor shall examine/ study drawings and report to Engineer in case he desires to make any changes from Consultant proposed conduit layout plan and shall get the same approved from HSCC.

10.0 Shop Drawings

10.1 The Contractor shall prepare and submit to the Engineer for his approval detail shop drawings of Main & Sub Distribution Boards, Distribution Boards, special pull boxes, light & fan switch boards, telephone distribution boards, FDA system and lightning protection system and other equipment to be procured/ fabrication by the Contractor within 15 days of signing of the above items required to complete the electrical installation in all respect.

11.0 Manufacturer's Instruction

11.1 Where manufacturers' have furnished specific instructions, relating to the materials used in this job, covering points not specifically mentioned in these documents, these instructions shall be followed in all cases.

12.0 Materials & Equipment

12.1 All materials and equipment shall be ISI marked and shall be of the approved make and design. Unless otherwise called for, only the best quality of materials and equipment shall be used. The Contractor shall be responsible for the safe custody of all materials till these are taken over by client and shall insure as against theft, damage by fire, earth quake etc. A

list of items of materials and equipment, together with a sample of each shall be submitted to the Site office.

13.0 Scale

13.1 Drawings shall be prepared to the scale as required for proper explanation and shall indicate the size and location of all equipments and accessories herein. The Contractor shall obtain all dimensions preferably at the building (Site of work) and check those plans for interference with the building structure and other equipment.

14.0 Brochures and Data

14.1 The Contractor shall submit four copies of all brochures / manufacturer's description data and similar literature.

15.0 Approval of Shop Drawings

15.1 The Engineer's approval of shop drawings, schedule, brochures etc. shall be an approval of general details and arrangements only and shall not relieve the Contractor from responsibility for deviation from drawings or specifications unless he has in writing called Engineer to such deviations at the time of submission nor shall it relieve the Contractor from responsibility for errors or omissions of any kind in the shop drawings when approved.

16.0 Samples & Catalogues

For HSCC approval, Contractor shall submit the samples & catalogue of the material, which are used at Site as per the approved makes.

17.0 Approval of Materials

17.1 All materials used on the Works shall be new and of the best quality available, conforming to the relevant specifications and as per good Engineering practice. Prior approval shall be obtained in writing from the Engineer for all materials proposed and when necessary, approved sample duly identified and labelled shall be deposited with the Engineer and shall be kept at Site. List of approved make indicates make/ manufacturer generally acceptable. Contractor shall submit the detail drawings for HSCC approval.

18.0 Inspection, Testing and Inspection Certificate

- 18.1 HSCC and authorised representative of HSCC shall have at all Reasonable times access to the Contractor's premises or Works and shall have the power at all reasonable time to inspect and examine the materials and workmanship during its manufacture or erection or if the part of works is being manufactured or assembled at other premises or works.
- 18.2 The Contractor shall arrange all the materials and labour required for inspection of equipment or for any testing to be carried out at his/ manufacturer's works or at Site. Notice for such inspection/ presence for testing shall be given to the Engineer by the Contractor at least fifteen (15) days in advance together with the routine test certificates of the equipments/ materials given by the manufacturer.
- 18.3 Notwithstanding approval of tests or equipment by the Engineer, the Contractor shall be required to perform site tests and prove the correctness of ratings and performance of equipment/ machinery and materials supplied and installed by the Contractor as per the Contract specifications and conditions. Engineer shall have full power to order the material or work to be tested by an independent agency at the electrical Contractor's expense in order to prove soundness & adequacy.

19.0 Schedule & Manner of Operation

- 19.1 Time being the essence of this Contract, Contractor shall be expected to furnish all labour & material in sufficient quantities at appropriate time, expedite and schedule the work to meet the Engineer's requirement and so manage the operations that the work shall be completed in time as stated else where. In case of shut down of power supply, Contractor shall coordinate with Engineer and shall carry out essential works during the shut down period allowed by the Engineer. In case Engineer allows for such period during night or early morning hours, Contractor shall make all provisions to avail such account. Contractor shall not be entitled for any extra claims on such account. Contractor shall programme his work in such a way that items of work requiring presence of Engineer are carried out between 9 A.M. & 5 P.M. on working days.

20.0 Performance Guarantee

- 20.1 All equipment shall be guaranteed for 12 (Twelve) months from the date of handing over of installation to the Engineer against unsatisfactory performance and/or break down. The equipment or component or any other part of installation so found defective within the guarantee period shall be replaced / repaired by the Contractor free of cost to the satisfaction of the Engineer. **The normal guarantee and/or warranty**

provided by the manufacturer will have to be submitted alongwith all the test certificates from manufacturer.

21.0 Conformity with Statutory Acts, Rules and Standards

- 21.1 The installation shall be in conformity with the Bye-laws, Regulations and Standards of the local authorities applicable to the installations. But if the specifications and drawings call for a higher standard of material and/or workmanship than those required by any of the above Regulations and Standards, then the specifications and drawings shall take precedence over the said regulations and standards.
- 21.2 However, if the drawings or specifications required something which violates the Bye-laws and Regulations, then the Bye-laws and Regulations shall govern the requirement of this installation.
- 21.3 Indian Electricity Act and Rules : All electrical works in connection with installations of the system shall be carried out in accordance with the provision of the Indian Electricity Act, 1910 and the Indian Electricity Rules 1956, both amended upto date.
- 21.4 CPWD Specification :The Electrical installation work shall conform to CPWD General specifications for Electrical Works Part I (Internal) and Part II (External) – latest issues, both amended upto date.
- 21.5 Indian Standard : The system / components shall conform to relevant Indian Standards wherever they exist and to the latest National Building Code-2005.
- 21.6 Nothing in these specifications shall be construed to relieve the Contractor of his responsibility for the design, manufacture and installation of the equipment with all its accessories in accordance with applicable Statutory Regulations and safety codes in force.

22.0 Completion Drawings (As Built Drawings)

- 22.1 On completion of the work and before issue of certificate of virtual completion, the Contractor shall submit to the Engineer completion plan drawn to a scale in tracing cloth with ink indicating the following, along with three blue print copies of the same:
- a. Run and size of conduits, inspection boxes, junction boxes and pulls boxes
 - b. Number of size of conductors in each conduit

- c. Location and rating of sockets and switches controlling the light and power outlets
- d. Location and details of main & sub distribution boards, distribution boards indicating the circuit number controlled by them
- e. Type of fitting viz. fluorescent, pendants, brackets, bulkhead etc., including their rating & type of lamp, fans and exhaust fans
- f. A complete wiring diagram as installed and schematic drawings showing all connections for the complete electrical system
- g. Location of telephone outlets, junction boxes and sizes of various conduits and number & sizes of wire drawn
- h. Layout of telephone cables
- i. Location of all earthing stations, route and size of all earthing conductors, manholes etc.
- j. Layout and particulars of cables & sub mains
- k. Schematic drawing for telephone system
- l. Layout of conduits for computer outlet points
- m. Layout and details of fire detection & alarm system consisting of manual call points, fire alarm hooters, smoke & heat detector, FDA control panel including details of conduits and number of wires drawn
- n. Layout and details of lightning protection system
- o. Insulation tests and earth test results
- p. PA System drawings
- q. Fire System drawings
- r. Disc Antenna drawings
- s. Equipment drawings
- t. Cable route layout of HT, LT & other cables
- u. External lighting drawing with road layout

23.0 Confirmation of Quantities

23.1 All quantities indicated in BOQ are tentative which may vary as per site conditions. Contractor has to verify quantities before procuring the material. No payment shall be payable for quantity brought to site but not used.

24.0 Terms of Payment (Only for items of major electrical equipments)

For purposes of estimating the contract value of work executed for certificate of payment under clause 32(d) of section II the following norms shall be followed.

- a. 80% of BOQ rate on receipt of equipment against receipt of complete material at site & test certificates in accordance with clause 33(l) of SCC.
- b. 10% of BOQ rate on erection and installation of equipment.
- c. 10% after successful completion of all works including all testing, commissioning & taking over.

25.0 Training of Personnel

The Contractor shall arrange to train the Employer's personnel prior to provisional take over of the project for the following:

- a) Lift
- b) Telephone Exchange
- c) All other Equipments like DG sets, pumps, panels etc.
- d) Adjustment of setting for controls and protective devices
- e) Preventive maintenance
- f) Operation of all electrical panels including their interconnectivity and interlocking scheme
- g) Fire detection system

26.0 Completion Certificate

- 26.1 On completion of the installation, a certificate shall be furnished to the Engineer, by the Contractor, countersigned by the licensed supervisor under whose direct supervision the installation was carried out. This certificate shall be in the prescribed form as required by the local authority. On the basis of this certificate, the Contractor shall arrange for inspection of installation by the concerned local authorities.
- 26.2 The Contractor shall be responsible at his own cost for getting the installation duly approved by the authorities concerned.

27.0 Check List

- 27.1 The Contractor shall provide to the Engineer 4(four) copies of a comprehensive maintenance checklist and shall paste a copy of it in the Substations & Plant Room. The checklist shall be a list of each piece of equipment in this Contract, and shall provide a space for each of the next fifty-two weeks to record the maintenance provided to and status of various equipment. Each month, at the time of inspection, the Contractor shall certify on this check list that he has examined each piece of equipment and that, in his opinion, it is operating as intended by the manufacturer, and that all necessary tests have been performed.

28.0 Repairs

All equipment that requires repairing shall be immediately serviced and repaired during the maintenance period. All parts and labours shall be furnished at no extra cost to the Engineer.

29.0 Safe Custody and Storage

Safe custody of all machinery and equipment dismantled, shifted & supplied by the Contractor shall be his own responsibility till the final taking over by the Employer. The Contractor should, therefore, employ sufficient staff for watch and ward at his own expenses. The Employer may, however, allow the Contractor to use the building space for temporary storage of his equipment, if such space is ready and available.

30. Testing and Commissioning

The Contractor shall pay for and arrange without any extra cost, all necessary balancing and testing equipment, instruments, materials, accessories, power, water, fuel and the requisite labour for testing. Any

defects in materials and/or in workmanship detected in the course of testing shall be rectified by the Contractor entirely at his own cost, to the satisfaction of the Engineer. The installation shall be tested again after removal of defects and shall be commissioned only after approval by the Engineer. All tests shall be carried out in the presence of the Engineer or the Engineer's representative.

31. Operation and Running of entire system

The contractor shall pay for and arrange for operation & running of entire electrical system including DG sets, lifts and other equipment for a minimum period of one month after satisfactory completion of work as desired by Engineer. Cost of operation & running of entire system including required material e.g fuel, consumables, tools & tackles, requisite manpower etc. shall be deemed to be included in the contract price and nothing extra shall be paid.

32. Layout of all services, Operating & Maintenance Instructions, Do's & Don'ts etc.

Layout of all services, Operating & Maintenance Instructions, Do's & Don'ts etc. for all the plant rooms, AHU's Machine rooms, Sub-stations, Pump Rooms, Toilets, Control Panels, etc. must be equipped with coloured layout of services for each floor. Operation & Maintenance Manual of the respective services, Do's & Don'ts for all the plants, machinery & services to be installed with every individual units.

(C) SPECIFIC CONDITIONS OF CONTRACT RELATING TO HVAC SYSTEM

1.0 General

1.1 The following Additional Specific Conditions shall be read in conjunction with General Conditions of Contract and Specific Conditions of Contract. If there are any provisions in these Additional Specific Conditions which are at variance with the provisions in the above mentioned documents, the provisions in these Additional Specific Conditions shall take precedence.

2.0 Scope of Contract

2.1 The scope and general character of works to be carried out under this section comprises of Supply, Installation, Testing and Commissioning of Heating, Ventilation and Air-conditioning installations as illustrated in drawings, specifications, technical data and Bill of Quantities.

3.0 Stores and Materials

3.1 The contractor shall provide every thing necessary for the proper execution of the work according to the intent and meaning of the drawings, Bill of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can be reasonably inferred there from. In case of any discrepancy in the drawings or between the drawings, Bill of quantities and specification, the more stringent shall be followed. The decision of the Engineer in this regard will be final and complied with.

4.0 Supply of Equipment

Equipment shall be strictly as per the list of approved makes/manufacturers given in the Bid documents. However, final choice of make shall lie with the Engineer.

4.1 The Contractor shall submit manufacturer's test certificates of equipment supplied.

4.2 The Contractor shall submit the original "Excise Paid Certificates", and exit Gate passes form manufacturer's factory/works clearly bearing the batch numbers and date of despatch.

5.0 Working Drawings etc.

- 5.1 The Contractor shall within 60 days of signing of the Contract, prepare and submit to the Engineer for approval, 2 sets of detailed shop drawings of equipment, equipment characteristics and capacity details of all equipment, accessories and devices etc. as per specifications and as required by the Engineer.
- 5.2 These drawings shall contain details of construction, size, arrangement, operating clearances, performance characteristics, and capacity of all items of equipment, as also details of all related items of work by other disciplines.
- 5.3 If the Engineer makes any amendment in the above drawings, the Contractor shall supply two fresh sets of drawings with the amendments duly incorporated, along with the drawings on which corrections were made. After final approval has been obtained from the Engineer, the Contractor shall submit a further six sets of shop drawings for the exclusive use of and retention by the Engineer.
- 5.4 The shop drawings shall be submitted for approval sufficiently in advance of planned delivery and installation of any material, to allow Engineer ample time for scrutiny. No claims for extension of time shall be entertained because of any delay in the work due to failure to produce shop drawings in time.
- 5.5 Approval rendered on shop drawings shall not be consider as a guarantee of measurement or of building condition. Where drawings are approved, said approval does not mean that drawings have been checked in detail nor does it in any way relieve the contractor from his responsibility of furnishing materials or performing work as required by the contract.

6.0 Completion Drawings

- 6.1 Following "AS BUILT" drawings duly laminated and mountable at various locations shall be submitted by the Contractor on completion of the work :
- a. Plant installation drawings giving complete details of the entire equipment including foundations
 - b. Ducting drawings showing all sizes, damper locations and sizes of all air outlets and intakes, for all floors
 - c. Electrical drawings showing cable sizes, equipment capacities, control components and control wiring

- d. Schematic control drawings giving detailed sequence of operation and notes to explain the operation of the control circuit
- e. Piping drawings showing all pipe sizes, valves and fittings
- f. Any other drawings to be supplied as per instructions of the Engineer.
- g. Water supply and drainage of all toilets duly laminated and mounted on walls of toilets
- h. Entire water supply, and fire fighting system on one drawing duly laminated and mounted on pump room
- i. Entire Drainage system including STP from first floor trap till end manhole duly laminated and mounted at desired place.

The drawings shall be cross checked and approved by the Engineer before acceptance.

7.0 Operation and Service Manuals

7.1 The Contractor shall submit 3 (three) sets of operation and service manuals in respect of the air-conditioning plant including salient details of plant.

Following minimum details shall be furnished:

- i) Detailed equipment data as approved by the Engineer
- ii) Manufacturer's maintenance and operating instruction
- iii) Approved test readings

The Contractor shall also submit 4 (four) sets of technical literature on all automatic controls and complete technical literature on all equipment and materials. The Contractor shall frame under glass, in the Air conditioning plant room all consolidated control diagrams and all piping diagrams.

coloured Layouts of all electrical lines in A 1 size properly laminated to be fixed at various locations at the time of handing over of building.

8.0 Inspection at Contractor's Premises

- 8.1 The Engineer and his representatives shall at all reasonable time have free access to the Contractor's premises/works. The Contractor shall give every facility to the Engineer and his representative and necessary help for inspection and examinations and test of the materials and workmanship.
- 8.2 The Engineer's representative shall have full powers to inspect drawings of any portion of the work or examine the materials and workmanship of the plant at the Contractor's works or at any other place from where the material or equipment is obtained. Acceptance of any material or equipment shall in no way, relieve the Contractor of his responsibility for meeting the requirement of the specifications.
- 8.3 For Imported screw type water chilling machine manufacturer's factory test certificate would be acceptable in lieu of inspection at manufacturer works.

9.0 Subcontracting

The Contractor may subcontract part of the works with the written approval of the Engineer to any of the approved subcontractors given in the list of approved subcontractors, makes and manufacturers. A single subcontractor shall be appointed for carrying out the entire work of supplying, installation, testing and commissioning of all the equipment covered under the package. However, the overall responsibility of the Contractor for compliance with the Contract terms does not alter by subcontracting.

10.0 Material Submittals

The Contractor shall submit material submittals for all equipment and machinery for the written approval of the Engineer before placing orders. The material submittals shall comprise of at least the following:

- a. Manufacturer's technical catalogues and brochures giving technical data about performance and other parameters
- b. Manufacturers drawings/ sketches showing construction, dimensional and installation details
- c. Rating charts and performance curves clarifying rating of equipment selected and proposed

11.0 Samples and Prototypes

The Contractor shall submit samples of items such as grilles/ diffusers, valves, controls and/ or any other parts or equipment as required by the Engineer for prior approval in writing before placing the order. The Contractor shall also construct prototype or samples of work as laid down in the Contract or as instructed by the Engineer. Such samples and prototypes after approval shall be retained by the Engineer and shall serve as the standards to be achieved in final construction.

12.0 Testing and Commissioning

12.1 Tests on equipment as called for in the specifications shall be carried out by the Contractor in accordance with the specifications, the relevant Indian Standard Specifications and the relevant Indian and International Standards.

12.2 The initial tests shall include but not be limited to the following:

- a. To operate and check the proper functioning of all electrically operated components viz., compressor motor, pumps, blowers, air handling units, rotating machine, fans, boilers, etc.
- b. To operate and check the proper functioning of all electrical panels, switch gears, safety and other controls
- c. To adjust and balance air, water, steam and gas quantities to provide the designed flow rates by adjusting valves, dampers, diverters etc.
- d. To check the systems against leaks in different circuits, alignment of motor, `V' Belt adjustments etc.
- e. To check the vibration and noise levels of the equipment
- f. Setting of all control and all such other tests which are essential for smooth functioning of the plant

12.3 The Contractor shall pay for and arrange without any extra cost, all necessary balancing and testing equipment, instruments, materials, accessories, power, water, fuel and the requisite labour for testing. Any defects in materials and/or in workmanship detected in the course of testing shall be rectified by the Contractor entirely at his own cost, to the satisfaction of the Engineer. The installation shall be tested again after removal of defects and shall be commissioned only after approval by the

Engineer. All tests shall be carried out in the presence of the Engineer or the Engineer's representative.

13.0 Provisional Taking Over

13.1 After completion of the installation system, the same shall be put to a continuous running test for a period of 2 (two) days. All adjustments should be made prior to this test so that proper conditions/working are achieved during this testing. The test readings shall include items as noted in the Testing Schedules.

The plant will be provisionally taken over after successful completion of the above test and rectification of the defects communicated to the Contractor. The Defect Liability Period shall commence after the provisional taking over of the System.

13.2 Final Performance and Capacity Test

In addition to the above testing, final performance and capacity tests shall be carried out on the equipment as per the "Testing Schedules" during the defects liability period as follows:

- a. Peak summer/ monsoon test during the period from 15th May to 31st July. The installations should be able to maintain the specified inside conditions within the tolerance limits permitted in the Contract.
- b. Peak winter test during the period from 1st December to 15th February. The installations should be able to maintain the specified inside conditions within the tolerance limits permitted in the Contract.

14.0 Operation of Plant

14.1 After provisional taking over of the plant user/owner shall provide staff for operation. Staff will work under the supervision of the Contractor for proper operation of the plant. This responsibility of the Contractor shall continue till completion of test liabilities with respect to the plant or the maintenance period, whichever ever ends later.

14.2 The user shall have the right to operate all equipments, if in operating condition, whether or not such equipments, have been accepted as complete and satisfactory. Repairs and alterations shall be made at such time as directed by the Engineer. In special circumstances user may have

to use the plant to Air condition some areas even before the completion of whole work. The Contractor shall co-operate fully under such circumstances.

15.0 Guarantee and Defects Liability Period

15.1 The guarantee shall be valid for a period of 12 (Twelve) months from the certified date of completion of the project. In case the contractor is not able to carry out the seasonal tests (summer/monsoon & winter) within the certified date of completion, the same can be carried out during defects liability period. If required, the Defects Liability period shall be extended till satisfactory completion of seasonal rates.

16.0 Measurement of Works

16.1 All works shall be measured in accordance with the mode of measurement given in the specific sections of the specifications. In case the method of measurement for any item is not clarified in the specifications, the same shall be measured in accordance with the relevant IS standards.

17.0 Variation in Quantities

17.1 The quantities given in the BOQ are for the guidance of the Bidder. The Contractor shall, however, be paid on the basis of actual quantities of works carried out.

18.0 Maintenance

18.1 The Contractor shall provide **free** maintenance for a period of twelve months after testing and commissioning of the installation. The Contractor shall carry out all routine and special maintenance of the plant and attend to any defects that may arise in operation of the plant. Consumable items required during the maintenance, loss of which is not attributable to bad material and/or workmanship will be arranged by the Employer without cost to Contractor.

19.0 Performance Guarantee

19.1 The Contractor shall submit a performance guarantee certificate from the approved subcontractor that the system shall maintain the desired parameters within +/- 5 % of the specified parameters who shall also guarantee that the capacity of various components as well as the whole system covered under the scope of work, technical schedules and Bill of Quantities etc. shall not be less than the specified capacities. The guarantee of the specific equipment supplier alone with regard to the performance of the system shall not be acceptable. However, this does not alter the overall responsibility of the Contractor for compliance with the Contract terms and conditions.

20.0 Painting

20.1 All equipment and ancillary items such as pipes, supports etc., will be painted in approved manner, using standard colour scheme as approved by the Engineer.

21.0 Safe Custody and Storage

21.1 Safe custody of all machinery and equipment supplied by the Contractor shall be his own responsibility till the final taking over by the Employer. He should, therefore, employ sufficient staff for watch and ward at his own expenses. The Employer may, however, allow the Contractor to use any part of the building for temporary storage of his equipment, if such spaces are ready and available.

22.0 Terms of Payment

The following norms shall be followed for terms of payment of HVAC equipments & installation:

- A) 80% of BOQ rate shall be paid on receipt of equipment at Site and after inspection and passing on prorata basis in accordance with clause 33 of SCC
- B) 10% of BOQ rate shall be paid on satisfactory erection and installation of equipment on prorata basis
- C) 5% after successful completion of running tests and provisional taking over. 5% after final performance -cum-seasonal test to be conducted in summer or monsoon and removal of all defects pointed out during previous tests

23.0 Training of Personnel

The Contractor shall arrange to train the Employer's personnel on the following aspects prior to provisional take over of the plant :

- a) Operation of plant
- b) Gas charging and pumping down of the system
- c) Adjustments of settings for controls and protective devices
- d) Preventive maintenance
- e) Disassembling and assembling of compressor including identification and replacement

24. Handing over & Taking over process

For handing over & taking over process in addition to clauses specified the following services/works to be complied by the main contractor:

- a) Submission of Guarantees in stamp paper (format approved by Engineer) for all water proofing treatment executed in the works for a period of ten years. If any defects noticed within 10 years from completion of defect liability period the main contractor shall be sole responsible for the defects and same shall be rectified by the main contractor as per information from client within a period of 10 days from the notice.
- b) Rectification of all defects shall be carried out by the main contractor before Handing over/Taking over process.
- c) As built drawings 4 sets for Architectural, Structural, Plumbing, Electrical, HVAC system, Specialised services and others, approved by engineer shall be submitted by the main contractor before handing over & taking over process.
- d) All services/equipments to be run and check before handing over & taking over process as per requirements of employer/principal employer.
- e) Contractor has to arrange water & electricity at their own cost for the purpose of testing of services and equipments. No extra amount shall be payable on account of the same.
- f) Main contractor shall submit catalogues, brochures, operation manual, manufacturer test certificate, Guaranty/Warranty papers, licence etc for all equipments/materials before handing over & taking over process.

25. Operation and Running of entire system

The contractor shall pay for and arrange for operation & running of entire HVAC system for a minimum period of one month after satisfactory completion of work as desired by Engineer. Cost of operation & running of entire system including required material e.g fuel, consumables, tools & tackles, requisite manpower etc. shall be deemed to be included in the contract price and nothing extra shall be paid.

FORM OF AGREEMENT

This Agreement made the _____ day of _____ 20_____ between Director, Regional Institute of Medical Sciences (RIMS), Imphal, Manipur (hereinafter called "The Employer") for **Construction of OPD & Nursing College including internal and external services Plumbing, Electrical , Firefighting and HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur**, who enters into this Agreement of the one part and M/s (hereinafter called "The Contractor") of the other part.

Whereas the Employer is desirous that certain works should be executed by the Contractor, viz **Construction of OPD & Nursing College including internal and external services Plumbing, Electrical , Firefighting and HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur** ("the Works") and has accepted a Bid by the Contractor for the execution and completion of the works and the remedying of any defects therein.

Now this Agreement witnessed as follows :

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz :
 - (a) The Letter of Award;
 - (b) The said Bid;
 - (c) The General Conditions of Contract (Volume – II);
 - (d) Prequalification Documents (Volume – I)
 - (e) Instructions to Tenderers and Specific Conditions of Contract (Volume-III);
 - (f) The Specification;
 - (g) The Drawings;
 - (h) The Priced Bill of Quantities;
 - (i) Any other relevant documents referred to in this Agreement or in the aforementioned documents
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein the Contract Price or only such other sums as may become payable under the

provisions of the Contract at the times and in the manner prescribed by the Contract.

In Witness whereof the parties hereto have caused this Agreement to be executed the day and year first before written.

Signed, Sealed, and Delivered by the Said

Binding Signature of Director, RIMS for and on behalf of Regional Institute of Medical Sciences (RIMS), Imphal - Manipur

Binding Signature of Contractor

In the presence of

Witness (1) :

Witness (2) :

ANNEXURE - B

PROFORMA FOR PERFORMANCE BANK GUARANTEE

(On a stamp paper of appropriate value from any Nationalised Bank or Scheduled Bank)

To,
HSCC (India) Ltd.,
E-6(A), Sector 1,
Noida (UP) - 201301

Dear Sir,

In consideration of the **Director, Regional Institute of Medical Sciences (RIMS), Imphal, Manipur** (hereinafter called 'Employer') for **Construction of OPD & Nursing College including internal and external services Plumbing, Electrical , Firefighting and HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur** which expression shall include his successor and assignees represented by his Consultant, M/s HSCC(India) Ltd, Plot – 6(A), Block – E, Sector-1 Noida, Uttar Pradesh – 201 301 (hereinafter called HSCC) having awarded to M/S_____ (hereinafter referred to as the said Contractor or 'Contractor' which expression shall wherever the subject or context so permits include its successors and assignees) a Contract No _____ in terms inter alia, of the HSCC Letter No._____ dated_____ and the General Conditions of Contract and upon the condition of the Contractor's furnishing Security for the performance of the Contractor's obligations and discharge of the Contractor's liability under and in connection with the said Contract upto a sum of Rs. _____ (Rupees _____ only) amounting to _____ percent of the total Contract value.

1. We, _____ (hereinafter called 'The Bank' which expression shall include its successors and assignees) hereby jointly and severally undertake to guarantee the payment to the Employer in rupees forthwith on demand in writing and without protest or demur or any and all moneys payable by the Contractor to the Employer in respect of or in connection with the said Contract inclusive of all the Employer's losses and damages and costs, (inclusive between attorney and client) charges and expenses and other moneys payable in respect of the above as specified in any notice of demand made by the Employer to the Bank with reference to this guarantee upto an aggregate limit of Rs. _____ (Rupees _____ only).
2. We _____ Bank Ltd. further agree that the Employer shall be sole judge of and as to whether the said Contractor has committed any breach or breaches of any of the terms and conditions of the said contract and

the extent of loss, damage, cost, charges and expenses caused to or suffered by or that may be caused to or suffered by the Employer on account thereof and the decision of the Employer that the said Contractor has committed such breach or breaches and as to the amount or amounts of loss, damage, costs, charges and expenses caused to or suffered by the Employer from time to time shall be final and binding on us.

3. The Employer shall be at liberty without reference to the Bank and without affecting the full liability of the Bank hereunder to take any other Security in respect of the Contractor's obligations and liabilities hereunder or to vary the Contract or the work to be done there under vis-a-vis the Contractor or to grant time or indulgence to the Contractor or to reduce or to increase or otherwise vary the prices of the total Contract value or to release or to forbear from enforcement of all or any of the Security and/or any other Security(ies) now or hereafter held by The Employer and no such dealing(s) reduction(s) increase(s) or other indulgence(s) or arrangements with the Contractor or release or forbearance whatsoever shall absolve the bank of the full liability to the Employer hereunder or prejudice the rights of the Employer against the bank.
4. This guarantee shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the Contractor but shall in all respects and for all purposes be binding and operative until payment of all monies payable to the Employer in terms thereof.
5. The bank hereby waives all rights at any time inconsistent with the terms of this guarantee and the obligations of the Bank in terms hereof shall not be anywise affected or suspended by reason of any dispute or disputes having been raised by the Contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to the Employer in terms hereof.
6. The amount stated in any notice of demand addressed by the Employer to the Bank as liable to be paid to the Employer by the Contractor or as suffered or incurred by the Employer on account of any losses or damages or costs, charges and/or expenses shall be conclusive evidence of the amount so liable to be paid to the Employer or suffered or incurred by the Employer as the case may be and shall be payable by the Bank to The Employer in terms hereof.
7. This guarantee shall be a continuing guarantee and shall remain valid and irrevocable for all claims of the Employer and liabilities of the Contractor arising upto and until midnight of _____.
8. This guarantee shall be in addition to any other guarantee or Security whatsoever that the Employer may now or at any time anywise may have in relation to the Contractor's obligations/or liabilities under and/or in connection with the said Contract, and the Employer shall have full authority to have recourse to or enforce this Security in preference to any other guarantee or

Security which the Employer may have or obtain and no forbearance on the part of the Employer in enforcing or requiring enforcement of any other Security shall have the effect of releasing the Bank from its full liability hereunder.

9. It shall not be necessary for the Employer to proceed against the said Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding that any Security which The Employer may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the said bank hereunder be outstanding or unrealised.
10. We, the said Bank undertake not to revoke this guarantee during its currency except with the consent of the Employer in writing and agree that any change in the constitution of the said Contractor or the said bank shall not discharge our liability hereunder.
11. We _____ the said Bank further that we shall pay forthwith the amount stated in the notice of demand notwithstanding any dispute/difference pending between the parties before the arbitrator and/or that any dispute is being referred to arbitration.
12. Notwithstanding anything contained herein above, our liability under this guarantee shall be restricted to Rs. _____ (Rupees _____) and this guarantee shall remain in force till _____ and unless a claim is made on us within 3 months from that date, that is before _____ all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities there under.

Dated _____ day of _____ 20

For and on behalf of Bank.

Issued under seal :

PROFORMA FOR BID SECURITY BANK GUARANTEE

(To cover payment of Bid Security and Conditions of Contract)

(On a stamp paper of appropriate value from any Nationalised Bank or Scheduled Bank)

To
HSCC (India) Ltd.,
E-6(A), Sector 1,
Noida (UP) - 201301

Dear Sir,

In consideration of your agreeing to accept Bank Guarantee for Rs.
(Rupees) in lieu of
payment from M/s having its
/their registered office at
(hereinafter called the Bidder) towards Bid Security in respect of your Tender no.
..... calling for Tender for
at and for due fulfilment of the terms and
conditions of the said Tender, we hereby undertake and agree to indemnify and keep
you indemnified to the extent of Rs (Rupees
.....).

In the event of any loss or damages, costs, charges or expenses caused to or suffered
by you by reason of any breach or non observance on the part of the Bidder of any
terms and conditions of the said Tender, we shall on demand and without cavil or
argument, and without reference to the Bidder, irrevocably and unconditionally pay you
in full satisfaction of your demand the amounts claimed by you, provided that our liability
under this guarantee shall not at any time exceed Rs
(Rupees).

This guarantee herein contained shall remain in full force and till you finalise the Tender
and select the Tender as per your choice and it shall in the event of the said Bidder
being selected and entrusted with the said work, continue to be enforceable till the said
Bidder executes the Agreement with you and commences the work as stipulated under
the terms and conditions of the said Tender have been fully and properly carried out by
the said Bidder and accordingly discharges the guarantee.

We also agree that your decision as to whether the Bidder has committed any breach or
non observance of the terms and conditions of the said Tender shall be final and
binding on us.

We under take to pay the Consultant any money so demanded by the Consultant notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceedings 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 there under and the Contractor(s) shall have no claim against us for making such a payment.

This guarantee shall continue to be in full force and effect for a period of _____ days from the date of submission of Bid. Notwithstanding the above limitations, we shall honour and discharge the claims preferred by you within thirty days of expiry of this guarantee.

We shall not revoke this guarantee during its currency except with your previous consent in writing. This guarantee shall not be affected by any change in Constitution of our bank or of the Bidder firm. Your neglect or forbearance in the enforcement of the payment of any money, the payment whereof is intended to be hereby secured or the giving of time for the payment hereto shall in no way relieve us our liability under this guarantee.

Dated this day of

Yours faithfully,

For

Signature & seal of the Bank (Authorised Signatory)

ANNEXURE – D

APPENDIX TO TENDER

Important Clause	Clause No.	Volume	Remarks
Amount of Performance Security	10.1	II	5% of the Contract Price
Minimum amount of third party Insurance	23.2	II	Rs. 10,00,000=00 for anyone incident, no. of incidents Unlimited.
Amount of Liquidated damages	47.1	II	0.5% of Contract Price per week of Delay
Limit of Liquidated Damages	47.1	II	5% of Contract Price
Defect Liability Period	49.1	II	12 Months
Percentage of Retention	33 (a)	III	5% of Contract Price
Programme of work and updated progress reports	39.6	III	Programme updated monthly, progress reported weekly
Time of Completion	43.1 / 1.4	II / III	within 30 (Thirty) calendar months

PROFORMA FOR RETENTION MONEY BANK GUARANTEE
(On a stamp paper of appropriate value from any Nationalised Bank or Scheduled Bank)

To,

M/s HSCC (INDIA) Ltd.,
Plot No. 6(A), Block E, Sector 1,
NOIDA - 201 301.

Dear Sir,

In consideration of the **Director, Regional Institute of Medical Sciences (RIMS) for Construction of OPD & Nursing College including internal and external services Plumbing, Electrical, Firefighting and HVAC etc., for Regional Institute of Medical Sciences at Imphal, Manipur** (hereinafter called Employer) which expression shall include his successor and assigns represented by his Consultant M/s HSCC(INDIA) LTd., Plot -6(A), Block – E, Sector -1, Noida, Uttar Pradesh – 201 301 (hereinafter caled HSCC) having awarded to _____ (hereinafter referred to as the said Contractor or `Contractor' which expression shall wherever the subject or context so permits include its successors and assigns) a contract No _____ in terms inter alia, of the HSCC Letter No. _____ dated _____ to execute **Construction of OPD & Nursing College for Regional Institute of Medical Sciences at Imphal, Manipur** and the General Conditions of Contract and upon the condition of the contractor's furnishing guarantee for the retention of the contractor's obligations and discharge of the contractor's liability under and in connection with the said contract upto a sum of Rs. _____ (Rupees _____ only) amounting to 2.5% of the total contract value.

1. We, _____ (hereinafter called `The Bank' which expression shall include its successors and assigns) having its branch office at _____ (a Company under the provisions of the Companies Act 1913 hereby jointly and severally undertake to guarantee the payment to the Employer in rupees forthwith on demand in writing and without protest or demur or any and all moneys anywise payable by the contractor to the Employer under in respect of or in connection with the said contract inclusive of all the Employer's losses and damages and costs, (inclusive between attorney and client) charges and expenses and other moneys anywise payable in respect of the above as specified in any notice of demand made by the Employer to the Bank with reference to this guarantee upto an aggregate limit of Rs. _____ (Rupees _____ only).
2. We _____ Bank Ltd. further agree that The Employer shall be sole judge of and as to whether the said contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, cost, charges and expenses caused to or suffered by or that may be caused to or suffered by The Employer on account thereof and the decision of The Employer that the said Contractor has committed such breach or breaches and as to the amount or amounts of loss,

damage, costs, charges and expenses caused to or suffered by The Employer from time to time shall be final and binding on us.

3. The Employer shall be at liberty without reference to the Bank and without affecting the full liability of the Bank hereunder to take any other security in respect of the Contractor's obligations and liabilities hereunder or to vary the contract or the work to be done there under vis-a-vis the Contractor or to grant time or indulgence to the Contractor or to reduce or to increase or otherwise vary the prices of the total contract value or to release or to forbear from enforcement of all or any of the security and/or any other security(ies) now or hereafter held by The Employer and no such dealing(s) reduction(s) increase(s) or other indulgence(s) or arrangements with the Contractor or release or forbearance whatsoever shall absolve the bank of the full liability to The Employer hereunder or prejudice the rights of The Employer against the bank.
4. This guarantee shall not be determined or affected by the liquidation or winding up, dissolution, or change of constitution or insolvency of the Contractor but shall in all respects and for all purposes be binding and operative until payment of all monies payable to The Employer in terms thereof.
5. The bank hereby waives all rights at any time inconsistent with the terms of this guarantee and the obligations of the Bank in terms hereof shall not be anyway affected or suspended by reason of any dispute or disputes having been raised by the Contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to The Employer in terms hereof.
6. The amount stated in any notice of demand addressed by The Employer to the Bank as liable to be paid to The Employer by the Contractor or as suffered or incurred by The Employer on account of any losses or damages or costs, charges and/or expenses shall be conclusive evidence of the amount so liable to be paid to The Employer or suffered or incurred by The Employer as the case may be and shall be payable by the Bank to The Employer in terms hereof.
7. This guarantee shall be a continuing guarantee and shall remain valid and irrevocable for all claims of The Employer and liabilities of the contractor arising upto and until midnight of _____.
8. This guarantee shall be in addition to any other guarantee or security whatsoever that The Employer may now or at any time anyway may have in relation to the Contractor's obligations/or liabilities under and/or in connection with the said contract, and The Employer shall have full authority to have recourse to or enforce this security in preference to any other guarantee or security which The Employer may have or obtain and no forbearance on the part of The Employer in enforcing or requiring enforcement of any other security shall have the effect of releasing the Bank from its full liability hereunder.
9. It shall not be necessary for The Employer to proceed against the said Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding that any security which The Employer may have obtained or obtain from the contractor shall at the time when proceedings are taken against the said bank hereunder be outstanding or unrealised.
10. We, the said Bank undertake not to revoke this guarantee during its currency except with the consent of The Employer in writing and agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.

11. We _____ the said Bank further that we shall pay forthwith the amount stated in the notice of demand notwithstanding any dispute/difference pending between the parties before the arbitrator and/or that any dispute is being referred to arbitration.
12. Notwithstanding anything contained herein above, our liability under this guarantee shall be restricted to Rs. _____ (Rupees _____) and this guarantee shall remain in force till _____ and unless a claim is made on us within 3 months from that date, that is before _____ all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities there under.

Notwithstanding anything contained herein,

- a) Our liability under this bank guarantee shall not exceed Rs. _____ (Rupees _____).
- b) This bank guarantee shall be valid up to _____
- c) We are liable to pay the guarantee amount or any part thereof under the Bank Guarantee only & only if you serve upon us as a written claim or demand on or before _____.

Dated _____ day of _____ 20

For and on behalf of Bank.

Issued under seal :

ANNEXURE - F

PROFORMA FOR ADVANCE BANK GUARANTEE

(On a stamp paper of appropriate value from any Nationalised Bank or Scheduled Bank)

To

M/s HSCC (India) Ltd.,
Plot No. 6(A), Block E, Sector 1,
NOIDA - 201 301..

Dear Sir,

1. In consideration of the **Regional Institute of Medical Sciences** (hereinafter called as The Employer) which expression shall include his successors and assigns represented by his Consultant M/s. HSCC (India) Ltd., Plot - 6 (A), Block - E, Sector - I, Noida, Uttar Pradesh - 201 301, (hereinafter called HSCC) having agreed under the terms & conditions of Contract No. _____ dated _____ (hereinafter called the Contract or the said Contract) to make at the request of ("the Contractor" or "the said Contractor") the Contractor thereunder a lumpsum advance of Rs. _____ for utilising it for the purposes of the said Contract on its furnishing a guarantee acceptable to HSCC.
2. We, the _____ Bank having its branch office at _____ (hereinafter referred to as the Bank or the said Bank) a Company under the Companies Act 1956 and having our registered office at _____ do hereby guarantee the repayment and recovery of the said advance together with interest thereon as provided according to the terms and conditions of the said Contract. If the Contractor fails to utilise the said advance for the purposes of the said Contract and/or the said advance together with interest thereon as aforesaid is not fully recovered by The Employer, we _____ Bank hereby unconditionally and irrevocably undertake to pay to the Employer on demand and without demur or protest to the extent of the said sum of Rs. _____ with interest any claim made by the Employer on us against non- utilisation/misutilisation of the said advance and/or by reason of The Employer not being able to recover in full the said sum of Rs. _____ with interest as aforesaid.
3. We, _____ Bank further agree that the Employer shall be the sole judge of and as to whether the Contractor has utilised or not utilised the said advance or any part thereof for the purposes of the said Contract and/or as to whether the advance or any part thereof with interest has been recovered or not and the finding of the Employer in this regard shall be final and binding on us.

4. We, the said 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 Contract and till the said advance has been fully recovered and its claims satisfied or discharged and till The Employer certifies that the said advance with interest has been fully recovered from the Contractor.
5. The Employer shall have the fullest liberty without affecting in any way the liability of the said Bank under this guarantee or Indemnity from time to time to vary any of the terms and conditions of the said Contract or the advance or to extend time of performance by the Contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said Contract or the advance or securities available to The Employer and the said Bank shall not be released from its liability under these presents by any exercise by The Employer of the liberty with reference to the matter aforesaid or by reason of time being given to the said Contractor/or any other forbearance, act or omission on the part of The Employer or any indulgence by The Employer to the said Contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the said Bank from its said liability.
6. The Bank hereby waives all rights at any time inconsistent with the terms of this Guarantee and the obligations of the Bank in terms hereof shall not be in any way affected or suspended by reason of any dispute or disputes having been raised by the Contractor (whether or not pending before any arbitrator, Tribunal or court) or any denial or liability by the Contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to The Employer in terms thereof.
7. The amount stated in any notice of demand addressed by The Employer to the Bank as liable to be paid to The Employer by the Contractor, shall be conclusive evidence of the amount so liable to be paid to The Employer by the Bank.
8. This guarantee/undertaking shall be in addition to any other guarantee or Security whatsoever that The Employer may now or any time may have in relation to the Contractor's obligations or liabilities under and/or in connection with the said Contract, and The Employer shall have full authority to have recourse to or enforce this Security in preference to any other guarantee or Security which The Employer may have or obtain and no forbearance on the part of The Employer in enforcing or requiring enforcement of any other Security shall have the effect of releasing the Bank from its full liability hereunder.
9. It shall not be necessary for The Employer to proceed against the said Contractor before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank notwithstanding that any

Security which the Employer may have obtained or obtain from the Contractor shall at the time when proceedings are taken against the said Bank hereunder be outstanding or unrealised.

10. We, _____ the said Bank undertake that we shall pay forthwith the amount stated in the notice of demand notwithstanding any dispute/difference pending between the parties before the arbitrator and/or that any dispute is being referred to arbitration.
11. We, the said Bank undertake not to revoke this guarantee during its currency except with the consent of The Employer in writing and agree that any change in the Constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.
12. This guarantee/undertaking shall be a continuing guarantee/undertaking and shall remain valid and irrevocable for all claims of The Employer and liabilities of the Contractor arising upto and until midnight of _____.
13. Notwithstanding anything contained herein above, our liability under this guarantee shall be restricted to Rs. _____ alongwith interest due thereon (Rs. _____) with interest and this guarantee shall remain in full force till _____ and unless a claim is made on us within 3 months from the date i.e. before _____ all the claims under this guarantee shall be forfeited and we shall be relieved of and discharged from our liabilities hereunder.

Dated _____ day of _____ 20

for and on behalf of Bank

Issued under seal: