

TENDER

FOR

***CONSTRUCTION OF REGIONAL OFFICE BUILDING FOR
HLL LIFECARE LIMITED, AT PALLIKARANAI, CHENNAI***

**PART – III
SPECIAL CONDITIONS OF CONTRACT
(SCC)**

**TENDER NO. HLL/ID/15/23
AUGUST 2015**



एचएलएल लाइफ़केयर लिमिटेड
(भारत सरकार का उद्यम)

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SPECIAL CONDITIONS OF CONTRACT (SCC)

GENERAL

These special conditions shall be read in conjunction with the General Conditions of contract, Job Specifications, Drawings and other documents forming part of this contract wherever the context so requires.

Notwithstanding the sub- division of the documents into these sections and volume every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the context in so far as it may be practicable to do so.

The several documents forming the contract are to be taken as mutually explanatory of one another. In case of discrepancy the following order of precedence shall be observed:

- a. The items in the schedule of quantities.
- b. Specifications
- c. The works described in drawings and notes thereon.
- d. General specifications: referred to as CPWD specifications.
- e. Special conditions of contract.
- f. General conditions of contract.

The intending Contractor/ Contractor shall be deemed to have visited the site and familiarized himself thoroughly with the site conditions before submitting the tender or before signing the contract. Non-familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the work in strict conformity with the drawings and specifications.

The Employer shall have made available to the Contractor all the data on hydrological and sub-surface conditions at the site, and studies on environmental impact, if any which have been obtained by or on behalf of the Employer from investigations for the works. The Contractor shall be responsible for interpreting all data.

The contractor shall be deemed to have inspected and examined the site, its surroundings, the above data and other available information, and to have satisfied himself (so far as is practicable, taking account of cost and time) before submitting the Tender, as to:

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

The contractor shall be deemed to have obtained all necessary information as to risks, contingencies and all other circumstances which may influence or affect the tender

Contractor shall submit registration nos. for **Sales Tax, Service tax, Works Contract Tax, IT PAN No., PF Contract Labour License, ESI registration** along with bid documents.

1. Scope of Contract

The scope of work comprises of construction of Stilt + 4 storied building for HLL Lifecare Limited at Pallikaranai, Chennai. It also includes water supply, sanitary & plumbing, Electrical, Fire fighting, HVAC, DG, UPS, Lift, Rain harvesting pit, Common area finishes, etc.

The scope of work also includes preparation of all detailed shop drawings, obtaining approvals at different stages from local authorities such as electrical inspector, pollution control board and all other required statutory approvals /clearances from relevant Statutory authorities. The statutory fees for the govt, authorities will be reimbursed by HLL on production of proof for the same.

The contract shall be based on Item wise Price for the Items listed in the Schedule of quantities. The unit price quoted shall remain irrespective of quantity variation.

The employer may at any time during the contract period make alterations and/or modifications in the form of additions to, omissions from, or amendments in the scope of works.

The contractor shall not make any alteration and /or modification of the works, unless and until the employer's representative instructs or approves a variation.

2. Drawings

(a) Tender Drawings

The tender drawings are for Tender Purpose only and are intended as a guide to the Bidder/ Contractor and give general layout of buildings and general information of the structures and general positions of utilities, services and equipments only. Contractor's quoted rate for any item should not be based on any measurement, quantity, and specification from these drawings. Any claim raised by the contractor in this regard shall not be valid in this contract and shall not be accepted by the Client.

(b) Issue and custody of drawings & specifications

The contractor on the signing of contract shall be furnished free of cost three copies of all drawings and all further drawings issued during the progress of the works. The contractor shall keep one copy of all drawings at the works site and the HLL Engineer-in-charge shall have, at all reasonable times, access to the same.

The drawings shall be provided to the Contractor as per the schedule (prepared at the starting of the works and necessarily updated or revised time to time) mutually agreed by the Engineer-in-charge and the Contractor. Last major drawings may be provided as per the schedule prior to the stipulated date of completion and the Contractor, if found necessary shall increase his resources and effort so as to complete the works within stipulated time.

From time to time during the course of contract revised drawings may be issued to the Contractor and the Contractor shall ensure that all superseded drawings are removed from site and stored in a lockable cabinet as directed by the Engineer-in-charge and replaced by revised drawings.

The Contractor shall maintain complete up to date Register of drawings at site. All drawings shall be properly numbered and indexed for ready reference. Superseded drawings should be properly identified.

The contractor shall ensure that only the valid up to date drawings are used for setting out, construction and preparation of as built drawings etc.

(c) Bar Bending Schedule

Contractor shall prepare bar bending schedules and shall get them approved from the HLL Engineer-in-charge or his authorized representative.

(d) Working drawings/ Shop drawings/ Design:

The drawings supplied by the Engineer-in-charge have been listed in the tender documents. These drawings are indicative for the purpose of detailing and requirement of the contracts. The contractor shall take into consideration 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. In case of any difficulty it should be brought to the notice of the Engineer - in- Charge.

Structural and architectural drawings will be provided by the HLL Engineer-in-charge. 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 for shop drawings of all services will have to be done by the contractor based on the schematics and other details provided by the Engineer-in-charge or local authorities. The work will be executed by the contractor based on the approved drawings from the concerned authority and accordingly contractor will be responsible for obtaining all required final NOC/ clearance from concerned authorities. 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.

The contractor shall submit to the Engineer-in-charge 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 obtain approval of the Engineer-in-charge.

In case there is delay in any drawings and design viz shop drawings, or specialised works drawings etc. to be supplied by the contractor, Engineer-in-Charge may ask the Contractor to make necessary changes as required. In case of failure on the part of the contractor to carryout the directions of the Engineer-in-Charge action may be taken to get the needful done at the risk and cost of the Contractor. All drawings shall be signed by Contractor or their authorised representative with name, seal and date before submission to Engineer-in-charge.

3. Disruption of Progress

- (a). The Contractor shall give 4 weeks written notice to the Engineer-in-charge whenever planning or progress of the Works is likely to be delayed or disrupted due to non-issue of any drawing or order by the Engineer-in-charge. The notice shall give details of the drawing or order required explaining why and by when it is required and if any delay or disruption is likely to be suffered on that account.
- (b). If by reason of any failure or inability of the Engineer-in-charge to issue drawings/ order/ clarifications within 4 weeks of such notice and if the contractor suffers delay, then the Engineer-in-charge, shall record the facts for any extension of time under respective clause of the agreement. Notwithstanding anything stated above, the Contractor shall not be eligible for any financial compensation arising out of the above.

4. Further Drawings and Instructions

The Contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the Engineer-in-charge. The Engineer-in-charge may in his absolute discretion and from time to time further

issue drawings and/or written instructions, details, directions and explanations, which are hereafter collectively referred to as "Engineer-in-charge's Instructions" in regard to:

- a. The variation or modification of the design, quality or quantity of items of works or the addition or omissions or substitution of any item.
- b. Any discrepancy in the drawings or between the bill of quantities and/or drawings and/or specification.
- c. The removal from the site of any material brought thereon by the contractor and the substitution of any other material thereof.
- d. The removal and/or re-execution of any works executed by the contractor.
- e. The removal of any persons employed by the contractor on the site.
- f. The opening up for inspection of any work covered up.
- g. The amending and making good of any defects noticed during or after execution of the work.

The contractor shall forthwith comply with and duly execute any work in compliance to above instructions provided always that verbal instructions, directions and explanations given to the contractor or his representative by the Engineer - in- Charge, shall, if involving a variation, be confirmed in writing by the Contractor within seven days, and if not dissented in writing within a further seven days by the Engineer - in- Charge, these shall be deemed to be Engineer-in-Charge's instructions within the scope of the contract.

5. Contractor's General Responsibilities

(a). Execution of works:

The Contractor shall, subject to the provisions of the Contract, and with due care and diligence, execute and complete the Works & remedy any defects therein in accordance with the Contract. The Contractor shall provide all labour, including the supervision thereof, materials, Constructional Plant and Machineries and all other things, whether of a temporary or permanent nature, required in and for such execution, completion, maintenance 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.

If the contractor finds any discrepancy in the drawings or between the drawings, bill of quantities and specifications, the clauses 8.1 & 8.2 in 'conditions of contract' in General Conditions of Contract may be referred. He shall immediately and in writing refer the same to the Engineer - in- Charge for clarifications who shall decide the matter.

The successful contractor is bound to carry out any items of work necessary for the completion of the job even though such items are not included in the bill of quantities and rates instructions in respect of such additional items and their quantities will be decided as per the provision of the contract and issued in writing by the Engineer-in-charge.

The Contractor must bear in mind that all the work shall be carried out strictly in accordance with the specifications as given in these documents and also in compliance of the requirements of the local public authorities and to the requirements/ satisfaction/ direction of the Engineer-in-charge and no deviation of any account will be permitted.

The contractor shall have to use materials from the makes/ manufacturers specified in the list of materials of approved brand and/or manufacture contained in the contract documents and as approved by the Engineer-in-Charge. Wherever different pattern/ Design/ Quality of materials with same specification/ make as specified in the contract, is available in the market, Engineer-in-Charge will approve the pattern/ Design/ Quality of the material/ item which shall be final and binding on the contractor.

The contractor shall supply samples of all the materials/ fittings/ fixtures proposed to be used in the work and obtain approval of the Engineer - in- Charge. These samples shall be retained at site till completion of the work. If subsequently it is found that approved material upon testing does not meet the requirement as specified in the contract the contractor shall get approval of alternate material.

(b). Adequacy, stability and safety:

The Contractor shall be fully responsible for the adequacy, stability and safety of all site operations and methods of construction, the contractor shall ensure that all safety norms are followed as per contractual and other statutory requirements. The contractor shall comply with all applicable safety regulations in his design, access arrangements and operations on site. Unless otherwise stated in Part II (Special conditions), the contractor shall, from the commencement of work on site until taking-over by the employer, provide:

- i. fencing, lighting, guarding and watching of the works, and
- ii. Temporary roadways, footways, guards and fences which may be necessary for the accommodation and protection of owners and occupiers of adjacent land, the public and others.

The contractor will place necessary warning boards, signals and protective measures as required by any law or rules applicable to the specific work or location or as is required to prevent loss or damage to properties and general public.

(c). Temporary works and arrangements:

The Contractor shall furnish to the Engineer-in-charge full particulars i.e. site location and area required including drawings, etc. of all temporary works necessary for the execution of the works and shall give adequate time to the Engineer - in- Charge for his approval. The Contractor shall be solely responsible for the stability and structural safety of all temporary works including obtaining statutory approvals and payment of statutory fees, if any. Should it be necessary to shift the temporary works to some other place during the execution of the works, the Contractor shall do so, at his own cost.

(d). Initial and Final Clearance of site for temporary works:

The Contractor shall be responsible for the clearance of the site of all scrub, debris, rubbish, etc. to be removed off site to a location to be provided by the contractor and approved by the Engineer- in-charge. However, no trees shall be removed without the prior permission of the Engineer-in-charge. The structures, services and works required to be demolished and removed shall also be removed off site to a location as mentioned above. The Contractor shall obtain necessary permissions and approvals from the local authorities for such disposals. The demolition shall include digging, excavating and removal of substructures, foundations and buried works. The cost of all this shall be borne by the Contractor.

The above is applicable for all site offices, labour camps, and godowns etc., which are not required after the works is completed.

(e). Storage, Cleaning and Dewatering

The Contractor shall at all the times during construction keep the Site clean and free from all debris and unwanted materials on a daily basis as per instructions of the Engineer-in-charge. The Contractor shall properly clean the work as it progresses and shall remove all rubbish and debris from the site from time to time as is necessary and as directed. On completion, the Contractor shall ensure that the premises and / or site are cleaned, surplus materials debris, sheds etc. removed, areas under floors cleared of

rubbish, gutters and drains cleared, doors and sashes eased, locks and fastenings oiled, keys clearly labelled and handed over to the Engineer-in-charge / Employer's representative so that the whole is left fit for immediate occupation or use and to the satisfaction of the Employer.

Storage of materials shall be in an organized manner and in proper compartments as directed by the Engineer-in-Charge. Storage on suspended floors shall not be permitted unless specifically approved in writing by the Engineer-in-charge for specific materials in specific locations and in approved manner. The Engineer-in-charge shall be furnished with load details, if requested, before seeking approval for storage.

Regular cleaning operations shall be undertaken to remove all dust, debris, waste materials etc. A cleaning schedule shall be maintained.

Contractor shall make his own arrangement for storage of those materials, which can be accommodated at site. Contractor shall be fully responsible for safe custody of the same. Materials shall be considered as "Delivered at Site" only after the physical presence of materials at site are verified by the Engineer-in-charge. Storage of materials / equipment else where shall not be considered as "Delivered at Site."

Contractor shall be responsible to keep entire site free from water due to water coming from any source at any level and shall protect all materials and works from being damaged by the water from any source. Contractor shall make proper arrangements for drainage prior to use of water for curing, testing, cleaning etc.

Any expenditure incurred by the Contractor in fulfilment of his obligations under this sub-clause shall be deemed to have been included in the financial bid and subsequent contract.

(f).Working hours

The working hours shall be as per the statutory norms as then prevalent and allowed by the local authorities. The contractor shall strictly abide by the statutory working hours regulations. No works shall be carried out in the night hours except as permitted by the Engineer-in-charge/employer's representative under exceptional circumstances within allowable time period for construction as per the prevailing local norms.

Where night working is permitted, to facilitate the contractor's work operations, temporary lighting as per approved layout shall be provided, installed, maintained for the duration of the contract and removed after completion of work by and at the expense of the contractor. Employer however, shall not entertain any claim for extra cost or charges on account of working during night hours

6. Watching & Lighting

The Contractor shall throughout the execution and completion of the Works and the remedying of the site and the Works and the remedying of any defects therein have full regard for the safety of all persons entitled to be on the site and keep the site and the Works in an orderly state to avoid any accident or danger and provide safety measures, lights, guards, fencing and barricades where ever necessary or required by the Engineer-in-charge, or by any duly constituted authority, for the execution and for the protection of the Work, and/or for the safety and convenience of the public or others and take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to person or property of the public or others resulting from pollution, noise and other causes etc. at his own cost. During construction, the contractor shall take all reasonable steps to protect the environment (both on and off the site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations. The contractor shall ensure that air emissions, surface discharges and effluent

from the site during the contract period shall not exceed the values indicated in the employer's requirements, and shall not exceed the values prescribed by law.

The Contractor shall ensure the safety of wild Life animals in and around the site and ensure that all Statutory Regulations are complied with. He shall indemnify Owner against violation of Wild Life Protection Act or any such Government Regulations

7. Care of Works

From the commencement to the certified completion of the whole of works, the contractor shall be responsible for the care, safety and maintenance of the works executed under the contract thereof and of all temporary works. In case of any damage/ loss or injury shall happen to the works or to any part thereof or to any temporary works from any cause whatsoever save and except the expected risks as defined in sub-clauses of Clause 12, the contractor shall at his own cost repair and make good the same, so that on completion the works shall be in good order and condition in conformity to every respect with the requirements of the contract. The contractor shall also be liable for any damage to the works occasioned by him including his subcontractors in the course of any operations carried out by him for the purpose of completing any outstanding work and complying with his obligations under clause 33 hereof. In case of failure on the part of the contractor the damage/ loss/ injury shall be made good by the client at the risk and cost of the contractor.

8. Force Majeure:

Any failure or delay in the performance by either party hereto of its obligations under his Contract shall not constitute a breach thereof or give rise to any claims for damages if, and to the extent that it is caused by occurrences beyond the control of the party affected, namely, acts of God, floods, explosions, wars, riots, storms, earthquakes, insurrection, epidemic or other natural disasters. The party so affected shall continue to take all actions reasonably within its power to comply as far as possible with its obligations under this Contract. The affected party shall promptly notify the other party after the occurrence of the relevant event and shall use every reasonable effort to minimize the effects of such event and act in all good faith with due care and diligence.

9. Contractor's Superintendence

(a). The contractor shall be solely responsible for the means, methods, techniques sequence and procedure of construction. The Contractor shall be responsible to see the completed work complies accurately with the Contract requirements. The Contractor shall provide all necessary superintendence during the execution of the Works as per contractual provisions.

(b). Contractor's Senior Representative for Execution & Coordination of Works

The Contractor shall ensure his presence at site all times during working hours throughout the course of the Contract or depute a Competent representative who shall be empowered to receive instructions from the Engineer-in- Charge in respect of all matters likely to arise in connection with the execution & coordination of the works at the site Contractor's Representative shall have the power to take joint measurement and sign the measurement books/bills. Any direction, explanations, instructions or notices given by the Engineer-in-charge to such representative shall be held to be given to the Contractor. In case of absence of said Representative other alternative representative should also be mentioned having same powers.

The contractor should submit curriculum vitae (CV) of the following key personnel proposed to be deployed at site for supervision and execution of work.

- Director/Project Coordinator

- Project Managers
- Construction Engineers
- Project Engineers
- Billing Engineers
- Quality Control Engineers
- Planning Engineers

The contractor under normal circumstances would not be allowed to replace the key personnel during the execution of the contract. However, for any reasons, due to unavoidable circumstances if it becomes necessary in the interest of the project to replace any one/ all the above key personnel the contractor must submit the CV of the new personnel (having qualification and experience as per requirement of the contract) to Engineer-in-Charge for their approval.

A list of all technical and key personnel staffs must be submitted to the Engineer-in-Charge with their area of work/ responsibility with verified signature and the link persons to receive the instruction at site (in case the main person was not found at site) during the inspection by HLL representative and/or Engineer-in-charge. Any staff of contractor found incapable/unsuitable to execute the assigned work shall be replaced by the Contractor if desired by the Engineer-in-Charge.

(c). Contractor's Employees

The Contractor shall employ competent Engineering staff/ technical assistants/ technicians who are qualified, skilled and experienced in their respective trades, to ensure proper supervision, quality & output of the work they are required to supervise. No child labour shall be employed on the work. All the skilled semi-skilled and unskilled labour shall work under the sole guidance of the contractor/his representative.

(d). Removal of Contractor's Employees

The Contractor shall on the direction of the Engineer-in-Charge immediately remove from the work any person employed thereon by him who may, in the opinion of the Engineer-in-Charge has misconduct himself and such person shall not be again employed on the works without the permission of the Engineer-in-charge. The contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst his staff and labour, and to preserve peace and protection of persons and property in the neighbourhood of the Works against such conduct

(e). Unauthorized Persons

No unauthorized persons shall be allowed on the site. The contractor shall provide complete security arrangement for the campus during construction to avoid trespassing. The Contractor shall ensure all such persons are kept out and shall take steps to prevent trespassing. However the contractor will make sure to provide free access at any time for Engineer-in-charge/HLL representatives to the site and other working places.

10. Compliance with Statutes, Regulations, Etc.

The contractor shall conform to the provisions of all statutes, ordinance, laws, acts of the legislature relating to the works, and to the regulations and by-laws of any local or other duly constituted authority and of any water, electric supply and other companies and/or authorities with whose systems the structure is proposed to be connected. The Contractor

shall keep the HLL Engineer-in-charge indemnified against all fines or penalties or liability of every kind for breach of any such statutory ordinance, law act of the legislation, regulations, and byelaws as aforesaid.

The contractor shall before making any variations from the drawings or specifications that may be necessitated by such regulations, give to the Engineer- in-charge written notice, specifying the variation proposed to be made and the reasons for making it and apply for instructions thereon. The contractor will not execute any work without written permission from the Engineer-in- charge.

The contractor shall bring to the attention of the Engineer-in-charge any specific requirement of the local authorities or any notice required for execution by virtue of such acts, regulations or bye-laws of such authority, or public office. All fees that may be chargeable in respect of these works shall be reimbursed by the consultant on production of authorised receipts.

11. Setting out

The contractor shall be responsible for the true and proper setting-out of the Works in relation to original points, lines and levels or reference issued by Engineer-in-charge in drawing or in writing and for the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of works and for the provision of all necessary instruments, appliances and labour in connection therewith. If, at any time during the progress of the works, and during defects liability period, any error shall appear or arise in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required to do by the Engineer-in-charge or his authorised representative shall at his own cost, rectify such error to the satisfaction of the Engineer-in-charge. The checking of any setting out or of any line or level by the Consultant shall not in any way relieve the Contractor of his responsibility for the correctness thereof. The Contractor shall carefully protect and preserve the benchmarks; sight-rails, pegs and other things used in setting-out the Works. Any rectification works required should be done by the Contractor at his own cost.

The Architects shall determine the lines and levels which may be required for the execution of the work and shall furnish the same to the contractor by way of accurately dimensioned drawings to enable the contractor to set out the work at ground level. The contractor shall be responsible for the true and proper setting out of work and for the correctness of the position, levels, dimensions, and alignment of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith. The contractor is to construct and maintain proper benches of all main walls / columns centre lines to facilitate accurate checking of lines & levels at any time. Where construction of benches is not possible, the lines and levels should be maintained on the surface of the wall / columns etc. by means of paint or any permanent marking.

The contractor shall carefully protect all such benchmarks, levels and other things used in setting out the works.

The contractor shall provide all necessary instruments, appliances and labour required by the Employer/Architect or his representative for checking of the setting out. If at any time during the progress of the works any error shall appear or arise in the position, level, dimensions or alignment of any part of the works, the contractor shall rectify at his own cost such errors to Employer/Architects satisfaction, if required to do so by the Architects. The checking of any setting out by the Architect shall not in any way relieve the contractor of his responsibility for the correctness thereof.

12. Quality of Materials, Workmanship and Test

- (a). All the materials used in the work shall be subjected to the mandatory tests as prescribed in the specifications detailed in Schedule F of the General Condition of Contract and other specifications referred to in the contract and workmanship shall be the best of the respective kinds described in the Contract and in accordance with the Engineer-in-charge's instructions and shall be subjected from time to time to such tests as the Engineer-in-charge may direct at the place of manufacture or fabrication or on the Site or at an approved testing laboratory. The source of supply and/or manufacturing within/ out side India may be inspected by the Engineer-in-charge / any representative as nominated by HLL. The expenditure on this account is deemed to be included in the rate quoted.

The contractor shall upon the instruction of the Engineer-in-charge's representative furnish him with documentation to prove that the materials & goods comply with the requirements of contract and for requirement stated above. The Engineer-in-charge may issue instruction in regard to removal of material from site or any work, if these are not in accordance with the contract. The contractor shall provide such assistance, instruments, machinery, labour and materials as are required for examining, measuring, sampling, testing of material or part of work.

The Contractor shall ensure strict quality control at site. In no case more than 2% re-work on any individual item, viz. RCC, Masonry Work, Plastering etc shall be allowed. For the purpose of determining the re-worked % either volumetric or surface area shall form the basis. Such basis shall be decided by Employer/engineer-in-Charge or his representative and shall be binding on the Contractor. Failure to comply with re-working requirement shall be treated as breach of contract in which case Employer shall take punitive action against the defaulting Contractor, as deemed fit

The Engineer-in-charge may carry out Third Party Quality Assurance/ Audit by an independent agency/ individual/ firm/ institute at any time. The agency will be permitted and offered all support related to site inspection by the Contractor. Observations/ discrepancies noticed by third party quality assurance/audit shall be attended by the contractor at his own cost.

(b). Samples

- i) All samples of materials and /or items of works in adequate numbers, sizes, shades & pattern as per specifications shall be supplied by the contractor without any extra charge. Contractor shall submit Samples to the Engineer-in-charge for approval. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site, detailed literature / test certificate of the same shall be provided instead to the satisfaction of the Engineer-in-charge. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalogue numbers and the use for which intended and otherwise as the Engineer-in-charge may require to review the submittals for the limited purposes required by paragraph (d) below. The numbers of each sample to be submitted will be as specified in the Specifications, or as shall be specified by the Engineer-in-charge.
- ii) Submittal Procedures
- (a). Before submitting each Sample, Contractor shall have determined and verified all materials with respect to intended use, fabrication, shipping, handling, storage, assembling and installation pertaining to the performance of the Work and All information relative to Contractor's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programmes incident thereto.

- (b). Each submittal will bear a specific written indication that Contractor has satisfied Contractor's obligation under the Contract Documents with respect to Contractor's review and approval of that submittal.
 - (c). At the time of each submission, contractor shall give the Engineer-in-charge specific written notice of such variations, if any; that the sample submitted may have from the requirements of the contract document. Such notice shall be separate from the submittal and in addition shall cause a specific notation to be made on each sample submitted for review and approval of each such variation.
- iii) Review and Approval: Sample shall be reviewed and approved only to determine if the items covered by the submittals will, after installation or incorporation in the work, conform to the information given in the contract documents and be compatible with the design concept of the completed project functioning as a whole as indicated by the contract documents, drawings.
 - iv) Review and approval will not extend to means, methods, techniques, sequences or procedures of construction. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. Contractor shall make corrections required by Engineer-in-charge and shall submit as required new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for and by the Engineer-in-charge on previous submittals.
 - v) Above referred review and approval Samples shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Document unless Contractor has in writing called the Engineer-in-charge's attention to each such variation at the time of submission as specified above and received written approval of each such variation by specific written notation thereof incorporated in or accompanying the Sample approval; nor will any approval by Engineer-in-charge relieve Contractor from responsibility for complying with the requirements of contract.
 - vi) Only when the samples are approved in writing by the Engineer-in-charge, the contractor shall proceed with the procurement and installation of the particular material/ equipment. The approved samples shall be signed by the Engineer-in-charge for identification and shall be kept on record at site office until the completion and acceptance of the work and shall be available at the site for inspection/ comparison at any time. The contractor shall keep with him a duplicate of such samples to enable him to process the matter.
 - vii) For items of works where the samples are to be made at the site, the same procedure shall be followed. All such samples shall be prepared at a place where it can be left undisturbed until the completion of the project.
 - viii) The Engineer-in-charge shall communicate his comments/approval to the Contractor to the samples at his earliest convenience. Any delay that might occur in approving of the samples for reasons of its not meeting with the specifications or other discrepancies, inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials/ equipment's etc. shall be to the account of the contractor. In this respect the decision of the Engineer-in-charge shall be the final.
 - ix) On delivery of the supplies of materials/ equipments for permanent works at the site, the contractor shall specifically arrange to get the supply inspected by the Engineer-in-charge and compared with the approved sample and his specific

obtained before using the same in the work.

(a). Cost of Tests

The cost of making any test shall be borne by the Contractor as intended by or provided for the Contract or as found necessary by the Engineer-in-charge for ascertaining whether the quality of materials intended to be used by the Contractor in the Works is acceptable, whether any finished or partially finished work is appropriate for the purposes which it was intended to fulfil.

(b). Testing facilities

The Contractor shall, at his own cost, provide testing facilities as per CPWD specifications and IS Codes at site as stipulated in the General conditions of the contract (GCC) or as directed by the Engineer-in-charge including staff required for testing. The test shall be carried out jointly in the presence of Engineer-in-charge or his representative and the contractor or his representative.

The contractor shall carryout all the mandatory tests and shall maintain records of testing & checks of material, in formats, checklists etc. to be given by Engineer-in-charge. All such records shall be maintained jointly by the contractor and Engineer-in-charge these shall remain under the custody of the Engineer-in-charge.

The laboratory shall be connected to the main potable water, electricity and other Services.

Some of the mandatory tests for each item of work and /or materials shall be carried out in approved outside laboratory as directed by the Engineer-in-charge. The Contractor shall bear the entire cost of testing charges for samples of items of work and/or materials and also the other expenditure towards making samples, packaging, and transport etc.

13. Absence of Specifications

If the nomenclature of any item do not contain particulars of materials and works which are necessary for its proper execution, all such materials shall be supplied and item shall be executed by the Contractor without extra charge over the quoted rates and If the Contractor requires any information, he shall request in writing well in advance to commencement of the particular work to the Engineer-in-charge who will clarify the issue within a reasonable time.

14. Obtaining Information's related to Execution of work

No claim by the Contractor for additional payment will be entertained which in consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the works, nor will any misunderstandings or the obtaining of incorrect information or the failure to obtain information relieve him from any risks or from the entire responsibility for the fulfilment of the contract.

15. Access for Inspection

Persons nominated by Engineer-in-charge shall at all reasonable times have free access to work and/ or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall extend necessary service to Engineer-in-charge and their representatives every facility necessary for checking measurements, inspection and examination and test of the materials and workmanship.

16. Examination of Work before covering up

(a) No part of the works shall be covered up or put out of view without the written

approval of the Engineer-in-charge and the contractor shall give due notice to the Engineer-in-charge whenever any such work or foundation is or ready or about to be ready for examination and the Engineer-in-charge shall, examine and measure any work before it is covered up or put out of view and to examine foundations before further work is placed thereon.

(b) Uncovering and making openings

The contractor shall uncover any part or parts of the works or make openings in or through the same as the Engineer-in-charge may direct from time to time and shall reinstate and make good such part or parts to the satisfaction of the Engineer-in-charge at his own cost.

17. Assignment

The contractor shall not, without the prior consent of the Engineer-in-charge assign the Contract or any part thereof, or any benefit or interest therein or there under, otherwise than by:

- A change in favour of the Contractor's bankers of any money due or to become due under the Contract, or
- Assignment to the Contractor's insurers (in case 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 Contractor shall not sub-contract the whole of the Works. Also, the Contractor shall not subcontract any part of the works without the prior consent of the Engineer-in-charge, except where otherwise provided under the Contract. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be fully responsible for the for the quality of the work executed and acts omission and commission, defaults and neglects of any Subcontractor, his agents, servants or workmen as if these were the acts, defaults or neglects of the Contractor, his agents, servants or workmen. Such Permission may be granted only for the specialized work etc and the decision of Engineer-in-charge shall be final.

18. Claims

The contractor shall submit to the Engineer-in-charge monthly statement giving full details of claims for any additional payments for extra or additional/ substituted work ordered by the Engineer-in-charge which he has executed during the preceding month, to which the contractor may consider himself entitled supported with analysis of rates being claimed.

19. (a) Inspection & Testing during manufacture

The HLL Engineer-in-charge shall be entitled to inspect, examine and test during manufacture the materials and workmanship and check the progress of manufacture of all fabrication materials to be supplied under the contract on the contractor's premises during working hours, and if part of the said materials is being manufactured on other premises, the contractor shall obtain for the Engineer-in-charge permission to inspect the same at such premises. This inspection, examination or testing shall not relieve the contractor from any obligation under the contract.

(b) Dates for Inspection & Testing

The dates of Inspection & Testing shall be mutually agreed by the Engineer-in-charge and the contractor.

(c) Facilities for Testing at Manufacturer's Works

Where the contract provides for tests on the premises of the contractor or of any sub-

contractor the contractor shall provide such assistance, labour, materials, electricity, fuel, stores, apparatus and instruments as may be required and as may be reasonably demanded to carry out such tests.

(d) Certificate of Testing

As and when fabrication materials shall pass the tests referred in this clause, the Engineer-in-charge shall furnish to the contractor a certificate in writing to that effect.

(e) Rejection

If as a result of such inspection, examination or test of the works (other than a Test on Completion the Engineer-in-charge shall decide that such material is defective or not in accordance with the contract he shall notify the contractor accordingly stating in writing his observations and reasons thereof. The contractor shall with due diligence make good the defect and ensures that the material complies with the Contract. Thereafter, if required by the Engineer-in-charge, the tests shall be repeated under the same terms and conditions till satisfactory results are made available.

(f) Delivery of Materials and Equipment

The contractor shall be responsible for all materials and equipment brought at site for the purposes of the contract. Unless the Engineer-in-charge directs, no material shall be brought to the site which is not required for execution of the work.

(g) Inspection & Testing and Re-inspection

All deficiencies revealed by testing and inspection shall be rectified by the contractor at his own expense and to the satisfaction and approval of the Engineer-in-charge. Rectified components shall be subject to re-testing till desired results are obtained.

(h) Inspection Reports

The contractor shall provide the Engineer-in-Charge with five copies of reports of all inspection and tests.

20. Virtual Completion Certificate

When the whole of the Work is substantially and virtually complete and has satisfactorily passed required tests that may be prescribed under the Contract:-

- (a). The contractor shall give a written notice to this effect alongwith an under taking to rectify any defects that may be found during inspection. The Engineer-in-Charge shall jointly inspect the work with the contractor within 30 days of receipt of such notice.
- (b). The Engineer-in-charge shall inspect the works are completed to see if they are in such a condition so as to be put to its proper or other intended final use and / or occupied without any short comings and no major or minor items of works are remaining which in the opinion of the Engineer-in-charge will cause undue difficulties in satisfactory use/ occupation of the works.

21. Provisional Acceptance and Certificate of final completion

(a) Provisional Acceptance

The work shall be deemed to have been provisionally accepted after fulfilment of all the following by the Contractor.

- i) Submitting As-Built Drawings, Catalogues, Brochures, and Data Sheets, manuals in the form as directed by Engineer in Charge ii). Obtaining Certificate of Completion from the Engineer-in- In charge.

- ii) Obtaining all required approvals from the statutory authorities as required for occupation and use of the works and handing over such certificates to the Engineer-in-charge.

(b) Certificate of Final Completion

The contract shall not be considered as completed until a Certificate of Final Completion has been issued by the Engineer-in-charge stating that the Works have been completed to his satisfaction and remedying / rectifying of defects have been satisfactorily completed.

The Engineer-in-charge shall give the Certificate for Final Completion as per the following whichever is later:

- Twenty-eight days after the expiration of the Defects Liability Period

OR

- If different Defect Liability Periods shall become applicable to different sections or parts of the Works, the expiration of the last such period

OR

- As soon thereafter as any works ordered during such period have been completed to the satisfaction of the Client.

Provided always that the issue of the Certificate of Final Completion shall be a condition precedent to payment or return to the Contractor the security deposit and / or Performance security in accordance with the conditions set out in the contract.

22. Defect after completion

(a). General

Any defect, shrinkage, settlement or other faults that may appear within the "Defects Liability Period" which in the opinion of the Engineer-in-charge are due to materials or workmanship not in accordance with the contract, shall be rectified as per the directions in writing of the Engineer-in-charge to the Authorized representative of the contractor within such reasonable time as shall be specified therein by the contractor, at his own cost. In case of default, the Engineer-in-charge may employ any person's to amend and make good such defects, shrinkage, settlements or other faults and all expenses consequent thereon or incidental thereto shall be borne by the contractor. Such damages, losses and expenses shall be recoverable from the bills due or may be deducted from any money due to or that may become due to the contractor. If no amount is available to the credit of contractor, the Engineer-in-charge may recover the amount from the dues of the contractor with any other work executed by him in HLL.

(b). Execution of work of repair etc.

Any defects, shrinkage, settlement or other faults which may appear or be noticed within the defect liability period, and arising in the opinion of the Engineer-in-charge from materials or workmanship not having in accordance with the contract, shall upon the direction in writing of the Engineer-in-charge's representative and within such reasonable time as shall be specified therein and without any delay, be amended and made good or replaced by the contractor at his own cost.

(c). Cost of Execution of Work of Repair, Etc.

All such works shall be carried out by the Contractor at his own expense if the necessity thereof shall, in the opinion of the Engineer-in-charge, be due to the use of materials or workmanship not in accordance with the Contract, or due to 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.

(d). Contractor's personnel to be at site

During the defects liability period the contractor shall depute at least one of his authorized representative at site along with required tradesmen to attend the defects to the satisfaction of Engineer-in-charge.

23. Works by Other Agencies

The Engineer-in-charge reserves the right to use premises and any portion of the site for the execution of any work not included in this contract which it may desire to have carried out by other persons simultaneously, and the contractor shall allow the reasonable facilities for the execution of such work, but shall not be required to provide any plant or material for the execution of such work except by special arrangement with the other agency. Such work shall be carried out in a manner so as not to impede the progress of the works included in the contract, the contractor shall not be responsible for any damage or delay which may happen to or occasioned by such work.

The contractor shall co-operate with other agencies working in the same project, and coordinate his plans and time schedules so that there will be no interference. The Contractor shall forward to the Engineer-in-charge all correspondences and drawings exchanged. Failure to check plans for conditions will render the Contractor responsible for bearing the cost of any subsequent changes found necessary or damages done.

The Engineer-in-charge shall not entertain any claim on account of the Contractor affording necessary facilities to execute the work simultaneously with other agencies executing the works for the same project.

24. Dues not paid by the Contractor

The contractor shall pay all dues or fees to Statutory authorities and Electric and Water supply authorities etc. within due period and indemnify the Client and the Engineer-in-charge from any claims or compensations or penalties or damages arising out of non-payment of any such dues or fees. However, in case some dues or fees are not paid by contractor/ and or claims for compensations or penalties etc. are raised by the Statutory authorities, HLL may deposit the required amount or any or all of the above and recover or deduct the same from any money payable to the contractor by the HLL or any other means available to HLL such as bank guarantee.

25. Urgent Repairs

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 period of Defects Liability any remedial or other work or repair, shall, in the opinion of the Engineer-in-charge be urgently necessary for the safety of the Works and the Contractor is unable or unwilling to do such work or repair despite notice, the Engineer-in-charge may employ and pay other persons to carry out such work or repair as the case may be and may consider necessary. If the work or repair so done by the other agency is the work which, in the opinion of the Engineer-in-charge the Contractor was liable to do at his own expense under the Contract, all expenses incurred by Other agency in so doing shall be recoverable from the Contractor by the Engineer-in-charge, or may shall be deducted by the Engineer-in-charge from any monies due or which may become due to Contractor.

26. Boreholes & Exploratory Excavation

If, at any time during the execution of the Works, the Engineer-in-charge shall require the Contractor to make boreholes or to carry out exploratory excavation, such requirement

shall be ordered in writing and shall be deemed to be an additional ordered under the provisions unless a provisional sum in respect of such anticipated work shall have been included in the schedule of items.

27. Fossils, Etc.

All fossils, coins, articles of value or antiquity and structures and other remains or things of geological or archaeological interest discovered on the site of the works shall be the property of the Government.

28. Plant Temporary Works & Materials

(a.) Plant, etc. Exclusive use for the Works

All Constructional Plant, Temporary Works and materials provided 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, in writing of the Engineer-in-charge, which shall not be unreasonably withheld.

(b.) Removal of Plant etc.

Upon completion of the Works, the Contractor shall remove from the Site all the said Constructional Plant and Temporary Works remaining thereon and any unused materials provided by the Contractor, within 10 days of obtaining the completion certificate/ Virtual completion of the work.

29. Operations and Maintenance Manual

The Contractor shall provide and submit to the Engineer-in-charge with two copies of the Operation and Maintenance Instruction Manuals as may be applicable for the works in a durable plastic case. The arrangement of these manuals shall be as follows:

SECTION A:	Index
SECTION B:	Full set of Indexed Photographs showing all salient features of the Project.
SECTION C:	Description and details of materials, items and fittings and fixtures used for the project along with Catalogues & Addresses of the Suppliers.
SECTION D:	Planned maintenance instruction and dates for order replacements.
SECTION E:	List of recommended Spare parts of consumables.
SECTION F:	List of "As-Built" Drawings (related to Working/ Shop drawings)

Until the Record Drawings, prints, transparencies and manuals referred to above have been received and approved by the Engineer-in-charge, Contract shall not be considered as complete and payment of monies will be withheld until such drawings, etc. have been submitted to and approved by the Engineer-in-charge. The cost of providing such records including proper submission thereof is deemed to be included in the Contract Sum quoted by the Contractor.

30. Reports by Contractor

(a.) The contractor shall maintain daily weather record. Daily maximum and minimum temperature and corresponding humidity shall be recorded and charted. Rainy days shall be recorded when the rain lasting more than one hour hampers the work. Any other inclemency in weather shall be recorded. The records shall be regularly shown to

the Engineer-in-charge and his signature obtained.

- (b.) The Contractor shall file daily category-wise labour report to the Engineer-in-charge. The report shall indicate scheduled requirement against actual strength.
- (c.) The Contractor shall prepare Weekly Reports of planned and actual progress of work and subsequent week's scheduled work. These will also include material procurement status. These reports shall be submitted to the Engineer-in-charge & shall be reviewed in Weekly Co-ordination Meetings.
- (d.)** The Contractor shall submit brief weekly report & an exhaustive monthly report in triplicate in format approved by Employer/Engineer-in-charge. The structure of the report will be in line with the Agreement. The Contractor shall also maintain at site a regular and proper record of progress on a continuous basis. Such record shall include Bar /PERT charts, Material movement, consumptions, rate of progress of various activities and any other record as may be advised by Employer from time to time. The Contractor whenever demanded by Employer shall produce all such reports, record, progress charts etc. Failure to submit reports may result in holding up or delay in Payment of bills.
- (e.) Monthly Progress Photographs:-** The Contractor shall arrange at his own cost to maintain a progress record of the works by taking postcard size colour photographs (preferably digitized photographs) 6 Nos. or more per month per block as directed by the Engineer-in-charge during the constructions stages and after completion and shall supply three sets at no extra cost. . These photographs shall be taken from same points each time, covering entire field activities The Contractor will be required to submit monthly reports on the progress of his work as per the format approved by the Engineer-in-charge.
- (f.) On the basis of approved bar charts contractor shall submit Progress Charts by the 10th day of every month.
- (g.) Monthly progress reports shall be prepared by the contractor and submitted to the employer's representative in six copies. The first report shall cover the period up to the end of the calendar month after that in which the commencement date occurred; reports shall be submitted monthly thereafter, each within 10 days of the last day of the period to which it relates. Reporting shall continue until the contractor has completed all work, which is known to be outstanding at the completion date stated in the taking-over certificate for works. Each report shall include:
 - i). photographs and detailed descriptions of progress, including each stage of design, procurement, manufacture, delivery to site, construction, erection, testing and commissioning;
 - ii). charts showing the status of construction documents, purchase orders, manufacture and construction;
 - iii). for the manufacture of each main item of plant and materials, the name of manufacturer, manufacture location, percentage progress and the actual or expected dates of commencement of manufacture, contractor's inspections, tests and delivery;
 - iv). records of personnel and contractor's equipment on site;
 - v). copies of quality assurance documents, test results and certificates of materials;
 - vi). safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and

- vii). Comparisons of actual and planned progress, with details of any aspects which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome such aspects.

31. Every care has been made to include all the aspects/ terms and condition in these documents. However, during execution, if any issue arises, which has not been included in these documents then standard norms/ rules & regulations/ terms & conditions as prevalent in CPWD shall be followed which shall be binding on both the parties.

32. Technical Examination

The Engineer-In-Charge shall have the right to cause Audit and Technical Examination of the works and the final bills of the contractor including all supporting vouchers, abstracts, etc. to be made as per payments of the final bill and if as a result of such Audit and Technical Examination the sum is found to have been overpaid in respect of any work done by the contractor under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over payment and it shall be lawful for the Engineer-in-charge to recover the same from the security deposit or Performance Security of the contractor or from any dues payable to the contractor. If it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid. The work comes under the purview of CVC and as such all orders and instructions are applicable to this work.

In the case of any audit examination and recovery consequent on the same the contractor shall be given an opportunity to explain his case and the decision of HLL shall be final. Payment on this account will be recovered from the contractor.

In the case of Technical Audit, consequent upon which there is a recovery from the contractor, recovery shall be made with orders of the Client whose decision shall be final. All action under this clause shall be initiated and intimated to the contractor within the period of twelve months from the date of completion.

33. Miscellaneous

(a.) Safety Regulations

Contractor shall be fully responsible for the safety of his Employees/ Visitors/ Contract Labour/ Sub-Contractors Labour. The Contractor shall provide first-aid box readily available at site. The Contractor shall provide all safety measures as per labour safety rules applicable

(b.) Labour Laws

The Contractor shall strictly adhere to all labour laws prevailing in the region. The contractor shall make timely payment of wages of his labour and the wages paid to the labour shall be equal to or more than the minimum wage prevailing at the time of payment. The Contractor shall comply with all applicable labour legislation, maintain labour records including payment made to the workers and obtain licence for engaging workers for the work as required under the labour laws.

Necessary deductions towards the Employee's State Insurance as per the Act, will be made in the Contractor's bills if necessary. The Contractor should maintain all records of labour payments (including sub contractors) and produce as and when required by the Employer or concerned statutory Authorities for assessment and recovery. In case any additional amount is demanded from the Company by the authorities on any account, the Company shall have the right to recover the same from the Contractor. The contractor must familiarize himself and comply with relevant labour laws like Minimum Wages Act, 1948, Contract Labour (Regulation

and Abolition) Act, 1970 and any other Act or enactment relating thereto and rules framed thereunder from time to time. No extra payment whatsoever shall be made to the contractor to comply with the rules and laws.

(c.) By-Laws of Statutory Authorities

The Contractor and his labour shall not violate municipal /sanitation /health or any other byelaws.

(d.) Tax Deduction at Source

All Taxes and surcharge as applicable on date shall be deducted from the amount due to the Contractor towards the value of the work done. TDS certificate thereof shall be issued to the Contractor.

(e.) General Lighting and Securities

The Contractor shall, throughout the execution, completion and remedying of the defects, provide and maintain at his own cost all lights, guards, fencing, warning signs and watch post, when and where necessary or directed by the Engineer-in-charge or by any duly constituted authority for the protect for the safety and convenience of the workers/ public / or others.

(f.) Delay in starting the work

No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land, encroachment or in the case of clearance of works, on account of any delay in according sanction to estimates in issue of drawings, decisions etc. However, the extension of time shall be granted as per relevant conditions of Contract.

(g.) Site instruction book

For the purpose of quick communication between Engineer-in- charge and the Contractor or his representative, site instruction book shall be maintained at site as described below:

Any communication, relating the works may be conveyed through instructions in the site instruction book. Such a communication from Engineer-in-charge to the Contractor shall be deemed to have been adequately served in terms of the contract once the entries are made and signed by the authorised representative of the contractor. For this purpose the contractor should authorise one of his employees on the site instruction book itself. Site instruction book shall have machine numbered pages and shall be carefully maintained and remain under custody of Engineer-in-charge the contractor can also avail of the site instructions book for urgent communication with Engineer-in-charge. Any instruction which Engineer-in-charge may like to issue to the Contractor may be recorded by the Engineer-in-charge in site instruction book.

(h.) Signage

The Contractor shall provide at his own cost, a sign board at directed location having overall size 2 meters by 4 meters indicating name of the project, and a three-D view of the project, as directed and approved by Engineer-In-Charge. The signboard will be illuminated during night.

(i.) Cutting of Trees - Permission for cutting of trees if required shall be obtained by the contractor from the concerned authorities.

- (j.) The contractor shall have adequate generators of required capacity as per site requirement as stand by arrangement.
- (k.) The temporary connection for electric line and water line from local authorities, if available, shall be taken by the contractor who will bear the expenditures
- (l.) No idling charges or compensation shall be paid for idling of the contractor's labour, staff or P&M etc. on any ground or due to any reason whatsoever.
- (m.) The Contractor shall mobilize and employ sufficient resources for completion of all the works within the stipulated time period as per agreement and as indicated in the approved Bar Chart/ Network. No additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by Engineer-in-charge. The Contractor shall submit manpower and machinery / equipment proposed to be deployed to carry out the work within the stipulated time. Such committed manpower/machinery shall be considered as minimum requirement and failure to maintain the same at site shall be treated as breach of Contract, leading to punitive action against the defaulting Contractor, as deemed fit

34. Co-ordination Meetings

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

35. Site Management:

The contractor shall make, till completion of the project:

- a) Proper pumping arrangement for removing water from the lift pits, basement or elsewhere at site.
- b) Proper arrangement of security, safety, transportation, manpower, lighting arrangement for execution of works at night.
- c) Arrangement of tower crane, batching plant and others machinery, tools and tackles as required for timely execution of work.
- d) Proper barricading around site so that surrounding area is made free from disturbances. The specifications of barricading shall be got approved by Engineer-in-charge. External face of barricading to display name of Client and Engineer-in-charge. No sign board of contractor is allowed unless permitted by the Engineer-in-charge in writing.
- e) Arrangement for diversion of underground services with the approval of Engineer-in-charge.

36. Statutory Requirements/ Approvals

The Contractor shall be responsible for obtaining approval from local electrical inspector, & water & Sewer line connection, permission for bore well and for temporary structures etc. from local Authorities. All the statutory expenditure incurred towards payment to the local bodies for getting local Electric inspector, sewer line and water supply connection for Engineer-in-charge will be reimbursed on the production of proof of payment. Contractor will be extended all assistance in this connection by the Engineer-in-charge.

The Contractor shall obtain all necessary approvals from local bodies including Water

supply agencies concerned, Electric Supply and inspectorate and for lift inspectorate approval for usage of lifts. All expenditure on this account will be borne by the contractor. However the fees paid by the contractor to these statutory authorities only for obtaining the required statutory approvals shall be reimbursed by HLL on submission of valid payment receipts from these statutory authorities.

The Engineer-in-charge may, at the written request of the Contractor, assist him in obtaining the approvals from relevant authorities. However any such request by the Contractor shall not bind the Engineer-in-charge in any manner.

(a) Contractor's Working Area

Suitable working space will be provided by the Engineer-in-charge to the Contractor as per site conditions and availability. The Contractor may have to carry out some cutting/ filling work for making this area workable. The cost of all such Works shall be deemed to have been included in the contract price quoted for the Works and no payment shall be made on this account.

(b) Contractor's Temporary Structures

The Contractor may, at his own expense and subject to the approval of the Engineer-in-charge and statutory authorities, construct temporary structures for its site office, stores; Workshop etc. in the working area allocated to him as above and remove the same on completion of Works. The Contractor shall furnish such details of his Temporary Works as may be called for by the Engineer-in-charge and the Contractor shall satisfy the Engineer-in-charge as to their structural safety. Temporary structures, found unsafe or inefficient shall be removed and replaced in a satisfactory manner.

(c) Contractor's Labour Camp

The Contractor shall make arrangements at his own expense for labour camp/ accommodation for labour and staff to be employed for execution of the work and their conveyance to Site. No workers/ staff shall be allowed to stay within the Site except with the specific approval of the Engineer-in-charge. Proper ID Cards shall be got approved/ authorized by the contractor from the Engineer-in-charge to authorise the Contractor's staff and workers to enter the Site.

(d) Procurement of Various Materials

The Engineer-in-charge will not supply any materials required for execution of 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 by the contractor from the Engineer-in-charge. Samples for all the materials to be used in the work shall be got approved from Engineer-in-charge before their bulk procurement. Samples approved shall be kept in the sample room till the completion of the work. However in case of delay in procurement of various materials by the contractor resulting into likely delay in completion of work, the Engineer-in-charge may procure the required materials directly and the cost of the same will be recovered from the contractor.

(e) Water Supply & Power Supply

The Contractor shall make his own arrangement for water supply at Site for drinking as well as construction purposes & Power Supply 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.

(f) Temporary Fencing

The Contractor shall at his own expense, erect and maintain in good condition temporary fence all around the working area as per directions of the Engineer-in-charge.

(g) Other Contracts/Concurrent Works

Employer reserves the right to let other Contractors work in the same area in connection with his work under similar Agreement. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and co-ordinate his work with theirs. If any part of Contractor's or sub-Contractor's work depends for proper execution or results upon the work of any other Contractor or Sub-Contractor, the Contractor shall inspect and promptly report to Employer any defects in such work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work.

During the progress of this contract, other construction works will also be concurrently in operation. The Contractor shall co-operate with the other Contractors working at site to the fullest extent and shall allow reaching other every facility and co-operation for execution of this work, simultaneously and satisfactorily during the erection of machinery or execution of any other activity. Contractor may have to suspend his work partially or totally in the interest of the whole project. He may also be required to dismantle or to shift his construction plant and equipments for erection of machinery and /or any other operation. In such cases, he shall not be given any compensation on account of reduction or stoppage of labor force or dismantling, shifting of his construction plant and equipments, etc

37. Compliance of Statutory Obligations for obtaining completion Certificates:

The Contractor shall comply all the statutory obligations. All statutory charges to get any NOC, clearances from local authorities shall be reimbursed by the Engineer-in-charge after submission of the bills/documentary evidences by the contractor. The contractor shall assist the Engineer-in-charge to obtain all NOC, completion & Occupancy certificates from respective local bodies and other statutory authorities as under:

- i) Pollution control Board,
- ii) Environment clearances,
- iii) Chief Electrical Inspector CEA,
- iv) Forest Department for Tree cutting etc.,
- v) Explosive department,
- vi) Local Municipal authority for water and sewer connection,
- vii) And any other statutory requirement for execution of work and to occupy the buildings and run the services in all respects.

Contractor shall organise all inspections of concerned authorities.

The contractor is required to submit the relevant drawings like completion

Drawings and any other statutory documentary requirements in copies as per requirement to obtain the above etc. at their own cost.

38. BILLS & PAYMENTS

(a). MOBILISATION ADVANCE

If Mobilization advance of 10% becomes payable as per the terms of the contract / LOA the same will be given against Bank Guarantee for equivalent value which shall be valid till completion of work furnished from Scheduled Bank in the proforma to be provided by the Employer. Mobilization Advance will be paid only after the Contractor has unconditionally accepted LOA/LOI. The Mobilization advance will be recovered as per clause 10 (B) ii of GCC.

(b). SECURITY DEPOSIT

The security deposit will be recovered as per clause 1 A of GCC. The security deposit already deducted including EMD can be returned to contractor on submission of bank guarantee for 5% of the tendered value of the work and on certification from Engineer in charge.

(c). VALIDITY OF OFFER/RATES / PRICES

- a. The Offer remains valid for a period of 120 days from the date of submission of tender.
- b. After placement of LOA all the rates/prices quoted by Contractor shall remain valid till the Final Acceptance Certificate / Measurement Certificate is issued by the Employer.
- c. Prices and unit rates of any or each item shall be valid irrespective of whether the item to be executed is located at any height/depth, any floor, inside or outside the building unless otherwise specifically mentioned in the description of item in the Schedule of Rate / Price / BOQ.
- d. The rates quoted shall be deemed to be for the finished work to be measured at site. Tenderers must include in their rates, transportation of materials to site, Sales Tax, Excise Duty, Service Tax, Octroi and any other taxes and duties or other levy levied by the Central Govt or any State Govt. or Local Authorities, if applicable. No claim in respect of any of the above levies will be entertained by the Company.

Sales Tax on Works contract, should be included in the rates quoted.

The rates quoted shall include all expenditure involved in providing contributions towards Employees State Insurance, Provident Fund, Insurance coverage for all the works, labor-cum third party risk also i.e CAR policy, Workmen's Compensation Policy and Third party Liability. The cost of all the materials supplied by the company shall be included for the Insurance.

Necessary deductions towards the Employee's State Insurance as per the Act, will be made in the Contractor's bills if necessary. The Contractor should maintain all records of labour payments (including sub contractors) and produce as and when

required by the Employer or concerned statutory Authorities for assessment and recovery. In case any additional amount is demanded from the Company by the authorities on any account, the Company shall have the right to recover the same from the Contractor. The contractor must familiarize himself and comply with relevant labour laws like Minimum Wages Act, 1948, Contract Labour (Regulation and Abolition) Act, 1970 and any other Act or enactment relating thereto and rules framed thereunder from time to time. No extra payment whatsoever shall be made to the contractor to comply with the rules and laws.

(d). CONFIDENTIALITY

The Contractor shall not reveal the scope of work/rates/quantities/facilities appearing in the Work Order/Contract to any body without the knowledge of Employer. Violation of this Clause will be treated as breach of Contract, in which case Employer will reserve the right to take necessary punitive action against the Contractor.

(e). TERMS OF PAYMENT

1. Progress / Running Payments shall be made based on Monthly Progress submitted along with detailed measurement duly checked and certified by Engineer-in Charge provided the value of Invoice so submitted is not less than Rs,50,00,000/- (Rupees Fifty Lacs only). Such payment shall be treated as Provisional advance only, subject to final settlement at the time of final bill. Payments of this running Invoice shall be made as under:
 - i. 75% of the RA Bill will be paid after certification by the Employer's representative (after all due recoveries are effected) within 14 days from the date of submission of bills to the Engineer in charge.
 - ii. The balance 25% shall be paid within 10 days from the date of payment of 75 % advance after effecting due recovery including security deposit, Mobilization advance, etc.
2. In case Employer decides to issue some material / equipment / consumables, which otherwise is expected to be supplied by the Contractor as a part of the contract, the landed cost of the same plus 20% service charge will be recovered from the forthcoming Progress / Running Payments.
3. In case the contract stipulates any free issue item(s) to be supplied by Employer to the Contractor, the Contractor shall maintain a proper record of consumption taking into account any allowable wastage. If it is found that the wastage is more than allowable limits, then Employer will be at liberty to recover the cost of such wastage (over and above allowable wastage) from the forthcoming Progress / Running Payments.
4. The Final Bill / Payments, after completion of the entire job, shall be released as per clause 9 of GCC. However, delay in this schedule due to unavoidable reasons may take place.

(f). ESCALATION

Any request for escalation of rates by the contractor will not be entertained by the employer under any circumstances.

(g). **MATERIAL ADVANCES/ UNFIXED MATERIALS**

Only for the following unfixed materials and goods available at the site, a material advance up to a maximum of 90% of the value of the materials shall be allowed only against furnishing the relevant purchase bills in the interim certificate as per provisions of General conditions of Contract

- a. Metal Door/ Window / Partition frames & shutters excluding hardware and glass.
- b. Pumps for water supply
- c. Transformers and electrical panels.
- d. HT cable
- e. Pumps for fire fighting works
- f. Air-conditioning units
- g. Supply of Lifts

(h). **CONTRACTOR'S INABILITY TO SUPPLY MATERIAL**

In case of Contractor fails to supply any item of material covered under contract then Employer will be at liberty to procure the same from open market and recover the cost as per 29 (b) suitable from forthcoming running bill.

(i). **AMBIGUITIES IN TERMS & CONDITIONS/ QUANTITIES.**

In case of interpretation of any item description in the schedule of quantities and the equivalent specifications, the item description given in the schedule of quantities shall prevail.

(j). **CHANGES IN CONSTITUTION**

Before any change is made in the constitution of the firm, the prior approval is to be obtained by the Contractor in writing of the Accepting Authority. If the Contractor is an individual or a proprietary concern and the individual or the proprietor dies and if the Contractor is a partnership concern and one of the partners dies, then the Accepting Authority reserves the right to cancel the contract, if the Accepting Authority is not satisfied that the legal representatives of the individual firm or the proprietor of the proprietary concern and in the case of partnership, the surviving partners are capable of carrying out and completing the contract.

(k). **UNDER PAYMENT / OVER PAYMENT**

The Employer reserves the right to carry out past payments, audit and technical examinations of the trial bill including all supporting vouchers, abstracts, etc., If as a result of such audit and technical examination any overpayment is discovered, it shall be recovered from any other sum due to the contractor, which may be available with the Employer or he shall pay the claim on demand.

Any amount due to the Contractor under this Contract for underpayment may be adjusted against any amount then due or which may at any time thereafter become due before payment is made to the Contractor.

(l). **CONFLICT IN INTERPRETATION OF CONDITIONS**

If there is any conflict or difference in the interpretation of conditions stipulated in various sections of this tender document the reading and interpretation of the conditions stated shall prevail in the following order of priority:

- I) Scope of work and technical requirements
- II) Special conditions of contract
- III) General Directions and conditions of contract

In case of any discrepancy between the description of items in schedule of quantities, specifications, drawings and other tender documents, the decision of the Engineer-in-charge, in writing, shall be final binding and conclusive for the purpose of this contract. The contractor in any case shall not delay or stop the work for the questions or disputes being referred to arbitration but shall proceed with work with all diligence until the decision of the arbitrator and shall abide by arbitrators decision.

- (m). The contractor shall submit a bill giving details of measurement of works (hard and soft copy of measurement books) executed for interim payments to the Employer. The bill for interim payment shall include only those items as applicable as per the terms of payments.

In addition to the above, following will also be taken into consideration:

- A. Any amount to be withheld as retention provision. The cumulative amount approved in respect of extra items executed up to the bill.
- B. Deduction of Income Tax and other applicable statutory deductions shall be made on the gross amount of each bill as per the provision of the Income Tax Act and other statutory act in force.
- C. Within three weeks of the receipt of the bill for interim payment, in case where there is difference in opinion as to the value of any item, the Employer's view shall prevail.
- D. All interim payments shall be treated as advance payments. On completion of the entire work, the contractor shall submit his final bill. After verifying the bill, the final amount shall be released.
- E. The rates for each item shall include all taxes, duties including Sales Tax or work contract tax etc. that may be levied according to the laws and regulations on the constructional plant, materials and supplies acquired for the purpose of the contract and on the services performed under the contract.
- F. The contractor shall submit computerized statement of total BOQ, completed BOQ and weekly schedule to Employer.
- G. The contractor shall submit floor wise schedule activities for better monitoring and co-ordination with other agencies to be engaged by the Employer.
- (n). The Contractor shall be fully responsible, in all respects, for the co-ordination of all the services work and works of other Employer appointed agencies. He shall ensure proper co-ordination for the inter-dependent / related activities between himself, services sub-contractors and other nominated, Specialist Contractors etc.

- a. The Contractor shall allow the use of water and electricity to other agencies to be appointed by the Employer from one point.
 - b. The Contractor will also allow these agencies to use common access, temporary supports, etc. as per conditions prevailing at the site, in best spirit of co-operation / co-ordination and without any extra cost.
 - c. The Contractor shall be responsible to work out a co-ordinated work schedule with the other nominated Contractors.
 - d. No other claim shall be entertained from the contractor on the plea that the work has been executed in the above circumstances or under difficult conditions. It shall be the responsibility of the contractor to enforce necessary discipline among his workers and staff to ensure smooth working at the site in a spirit of co-operation and amity with all other agencies. In case of any dispute, decision of Employer shall be final and binding to the contractor.
- (o). The contractor is made explicitly clear that the work is to be carried out in co-ordination with other nominated contractors/ agencies (engaged by the employer), which shall be engaged to execute other services of the project.

The Civil Contractor shall be allowed to construct essential temporary structures within the bounds of the site after obtaining approval from the employer. (labour sheds will not be allowed inside the premises).

The contractor shall submit for Employer's approval, the following information within 7 days of the date of written order to proceed with the work.

- A. Exact Layout and details of the temporary work that the contractor wants to carry out to fulfil his obligations under the contract.
 - B. A general layout of storage space for material for the execution of work within stipulated time period.
- (p). Depending on the exigencies at the site the temporary offices, stores etc. may have to be moved or shifted and the contractor shall do so, if so required by the Employer at no extra cost to the Employer.
- (q). After the award of the contract the contractor shall furnish Samples, Mock-ups and Shop Drawings (where appropriate) of all the materials and work listed elsewhere in these conditions, for approval by the Employer. These samples / Shop Drawings / Mock-ups shall be prepared either at the site or at the Contractor's workshop as directed by the Employer and delivered at the site to meet the time schedule finalised with the Employer.

All samples shall be made to the size and in the manner required by the Employer.

All such sample work, shop drawings etc. shall be produced by the contractor at his cost and no extra payment shall be made for the same.

- (r). Employer shall have full power to get any materials of work to be tested by an independent agency at contractor's expense in order to prove the soundness and adequacy.

- (s). **Guarantee:** The plinth area of the building shall be measured for payment. The work must be executed by approved specialised agency that is a member of IPCA & shall give a 10 (ten) years guarantee to the Employer. The Contractor shall give a Bank Guarantee for ten years for the following works as well as where called for in the item specification, specifically executed by him and the approved Patented Agencies/ Specialist Agencies (Sub Contractor)
- a. Anti-termite treatment
 - b. Waterproofing treatment
- (t). If any material / equipment are supplied by the Employer to the contractor free of cost, the contractor shall receive the same at site, handle with care and store them as directed by the Employer. The contractor shall be responsible for the safe custody and shall insure all materials against theft and damage by fire and earthquake. The contractor shall maintain records of consumption on daily basis.
- (u). The contractor shall ensure cleanliness and keep the site free from all debris, hazardous material, loose wires, open fires or any other materials and avoid damage due to accidents, negligence etc. All the above measures including fencing etc. required to be provided during the time period of the contract, shall be provided by the contractor at no expense to the Employer. The provision of all these measures does not absolve the contractor of his liabilities as per the contract.
- (v). It shall be the responsibility of the Contractor to ensure that his workmen do not trespass into areas and buildings adjacent to the construction site. The contractor shall enforce proper discipline in this regard by making proper arrangements.
- (w). The entire work shall be completed in all respects within 14 (Fourteen) continuous months from the date of receipt of LOI / Work order.
- (x). Penalty: If the Contractor fails to complete and hand over the completed work to the Employer within the stipulated period as per the Contract, penalty of 1.5% of the Contract Value per month of delay computed on per day basis will be charged from the Contractor upto a maximum of 10% of the Contract Value.
- (y). Along with the submission of bid, the contractor will submit a detailed construction schedule. The construction program will show the completion targets for major milestones of the job.

The Contractor shall mobilise equipment, tools, plant, scaffolding, shuttering, material, labour etc. in sufficient quantities so as to complete the work to meet the above agreed construction program. In the event of delay in the construction activities, the contractor shall mobilise additional resources to complete the job in the specified time period and at no extra cost to the Employer.

The Employer may suggest an alternative scheduling of operations, should they find it necessary, to accomplish the targets and the contractor shall accordingly mobilise additional resources at no extra cost to the Employer.

- (z). To facilitate satisfactory completion of the work under this contract, and to co-ordinate work with other agencies working at the site, meetings will be held at the time and venue decided by the Employer.

During these meetings progress of various works will be reviewed and those matters needing clarifications / decisions to expedite the work will be taken up.

- (aa). During progress of the work, completed portion of the building may be occupied and put to use by the Employer. The Contractor shall however remain fully responsible for the maintenance of all the work till the entire work covered by the contractor is satisfactory completed and handed over to the Employer.
- (bb). Safe custody of all materials and products 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.
- (cc). It shall be the responsibility of the Contractor to study carefully all the drawings, instructions etc and point out discrepancies and obtain clarifications, if any, in writing before taking up the work. He shall also be responsible to ensure that the work is carried out in accordance with Local Bye-Laws in all respects, and to ensure that he obtains all prior sanctions from all the Competent Local Authorities before he takes up the work. If, as a result of his failure to do so, in spite of the works having been carried out as per the drawings and instruction issued by the the Employer, and/or in the presence of the representative(s) of the Employer, the Contractor himself shall be solely responsible and if so directed, dismantle and reconstruct at his own cost the work/item(s) of work as per such directions. No claims in this regard will be entertained.
- (dd). It shall be the sole responsibility of the Contractor to ensure all safety measures giving proper prior notices etc. and obtaining prior permission from concerned local authorities as per Bye-Laws or directions issued by them, all at his own cost. No claim of the contractor in this regard shall be entertained. The contractor has to meet all construction safety requirements at their own cost.
- (ee). With the submission of the tender, the Contractors declares and agrees that all the labour and requisite materials required for the work are available for completion of the work within the period stipulated for completion of the work.
- (ff). It shall be the responsibility of the contractor to submit sample and obtain prior approval of the HLL/ or the Consultant of HLL in respect of all materials, fittings and fixtures and any other items as decided by the HLL/ Consultant. One such approved sample of each shall be kept with the Consultant and at site for future reference.
- (gg). Any material / item / fitting / fixtures rejected by the Employer shall be removed from the site within 48 hours of issue of instructions to this effect by the Employer. Failing this, the Employer shall have the rights to get these so removed at the contractor's cost and the contractor shall have no claim whatever in this regard.
- (hh). It shall be the entire responsibility of the Contractor to initiate action well in time with regard to extra/substituted items before taking up such items. The same shall apply to items, which have deviated as per the terms of the Contract. Contractor's failure in this regard shall be entirely at his own risk and cost.
- (ii). Carrying out / taking of joint measurements along with the Employer's representative and/ or getting the measurements of the various items included in any bill shall be the sole responsibility of the Contractor. Failure to get such measurements verified may entail non payments for such items for which the contractor himself shall be solely responsible and so also for all consequences flowing there from.

- (jj). The contractor is alone responsible, for any discrepancy arising out of the definition / interpretation etc. of any matter connected with the execution of the work, which has not been got clarified prior to submission of tenders as required and all consequences arising there from.
- (kk). The Contractor as per the given proforma shall submit a program of work. The agreed programme shall form a part of the contract.

Within the time stated in the Special conditions of contract, the Contractor shall submit to the Employer's Representative, for information, a programme which shall contain the following:

- (a) the order in which the contractor proposes to carry out the works (including each stage of design, procurement, manufacture, delivery to Site, construction, erection, testing and commissioning),
- (b) the times when submissions and approvals or consents are required, and
- (c) the sequence of Tests on Completion.

The programme shall include all major events and activities in the production of Construction Documents and the periods for the employer's representative's approval or consent, as indicated in the employer's requirements. Unless otherwise stated in the contract, the programme shall be developed using precedence networking techniques, showing early start, late start, early finish and late finish dates. No work shall be programmed to begin on site before the relevant late finish date of the periods for the employer's representative's approval or consent.

The contractor shall, whenever required by the employer's representative, provide in writing, for information, a general description of the arrangements and methods which the contractor proposes to adopt for the execution of the works. No significant alteration to the programme, or to such arrangements and methods, shall be made without informing the employer's representative. If the progress of the works does not conform to the programme, the employer's representative may instruct the contractor to revise the programme, showing the modifications necessary to achieve completion within the time for completion.

- (ll). The contractor shall adhere to the programme in its detail. Any modification to this shall be subject to the approval of the Employer.
- (mm). The contractor shall also include in his quoted rate barricading / fencing of construction activity area. All materials, fabrication yards, stores, manpower are to be contained within the barricaded area. The contractor shall not be allowed to extend his activities beyond this area.
- (nn). The Employer shall only provide necessary assistance for obtaining power for construction purpose only. However, it is the responsibility of the contractor to coordinate and follow up with the authorities concerned to obtain the temporary service connection. The contractor should maintain the main meter boards, cables, etc. and prevent from any damage due to natural or any other causes.
- (oo). The water for construction purposes shall be arranged by the contractor at his own cost. .

- (pp). The Employer will provide no place and no temporary constructions will be allowed at the site for workers' accommodation during the construction work.
- (qq). Wherever excavation in hard rocks occurs, , the same would be done after getting prior approval from the employer for the quantities and methodology. The contractor shall make his own arrangement to carry out such rock breaking works. The rates however shall be applicable as per mutually agreed
- (rr). De-watering: If water table is encountered during the excavation (or) water accumulates in the excavated portion due to rain or other reasons, the contractor shall use his own methods to remove the water using suitable dewatering pumps, hoses, fuel, etc., and employer shall not provide any such facility for the same. No extra claims towards dewatering will be considered.
- (ss). The Contractor will be provided with open space free of cost for constructing temporary site office near the construction area.
- (tt). It is essential that the works site be kept in an orderly and neat manner at all times. Stacking of materials, arrangement of fabrication yards, water tank for construction, equipment etc. shall be free from obstructions and easy to survey and inspect. The Employer should have the right to get such work as is necessary to ensure proper maintenance of the works site at the contractors cost, in case the contractor fails to comply with the requirements.
- (uu). The contractor shall use only steel scaffolding and not bamboos for any kind of such work.

SCHEDULE OF FISCAL ASPECTS

01	Submission of completed tender	On or before 2.00 pm on 07.09.2015
02	Site mobilization	Within 7 days of issue of LOI/ LOA whichever is earlier
03	Time of completion	14 (Fourteen) months from date of LOI / LOA/ handing over of site whichever is earlier.
04	Mobilization advance	10% of the contract value payable in two instalments as per clause 10 B (ii) of GCC against Bank Guarantee from any nationalized bank.
05	Release of bank guarantee	The bank guarantee for the mobilization advance shall be returned after recovery of full mobilization amount.
06	Payment terms	As per clause 38 of the Special Conditions of Contract.
07	Liquidated damages	<p>1.5% of tendered value per month of delay computed on per day basis beyond the date of Completion of Work (inclusive of Sundays & Holidays) subject to a maximum of 10% of tendered value, shall be deducted as liquidated damages as per clause 2 of GCC, if the delay was due to reasons for which the Contractor is responsible.</p> <p>All major intermediate milestones, as determined by the Employer/ Employer's Representative, will also be assessed and liquidated damages shall be applied for the delay in completion of those milestones, on the percentage rates and delay periods as mentioned above and in that case, the date of completion shall be referred to as date of completion of that particular milestone. However, if the Contractor manages to capture part of or complete lost time, a proportionate reduction in already applied liquidated damages shall be done.</p>
08	Minimum bill and interval between submission of bills	Minimum bill values shall not be less than Rs. 50,00,000/- and interval shall not be less than 30 (thirty) days after submission of previous bills.
09	Certification	<p>The Engineer-in-charge /employer's representative (after all due recoveries are effected) shall certify the running bill and 75% of the RA bill shall be paid within 14 days from the date of submission.</p> <p>The Engineer-in-charge / Employer's Representative shall certify the running bill for balance 25% within 10 working days from the date of payment of 75% advance after effecting the due recovery including the security deposit, Mobilization advance, etc. along with all required supporting documents.</p>
10	Supporting Documents	Bills will not be accepted / received by the Engineer-in-charge / Employer's Representative if bills are not in the correct format as prescribed by the Employer's Representative or are not presented along with material invoices / delivery challans, measurement sheets, rate

		analysis, proof of previous tax (sales tax, service tax, etc.) paid challan, proof of labour compliance such as PF, ESI, remittances, etc.
11	Security Deposit (Retention Money)	5 % (five percent) of the gross bill value shall be retained in cash from each running bill towards Security Deposit as per clause 2A of GCC.
12	Defects liability period	12 (Twelve) months from the date of taking over of the completed works by HLL.
13	Validity of offer	120 days from the date of submission of tender.
14	Transportation & Insurance	On account of Contractor. The Contractor shall submit all certificates of insurance within 10 days from the date of LOA.
15	Bank Guarantee / DD to be in favor of	HLL Life care Limited, Trivandrum
16	Pre-bid meeting	If applicable, shall be announced later.

ADDITIONAL CONDITIONS OF CONTRACT AND SPECIFICATIONS

(A) RELATING TO CIVIL, ELECTRICAL, PLUMBING, FIRE FIGHTING, LIFT, AIRCONDITIONING WORKS

General

- 1.1 The following Additional 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 Conditions of Contract & specifications which are at variance with the provisions in the above mentioned documents, the provisions in these Additional Conditions of Contract & specifications shall take precedence.
- 1.2 Rates: - The quoted rates shall be for complete items of work i.e. inclusive of material, labour, plant and machinery, tools and tackles, batching plant etc. including water & electricity, overheads charges, all taxes, statutory charges/levies applicable from time to time and others as specified etc, incidental works and all other charges for items contingent to the work, such as, packing, forwarding, insurance, freight and delivery at Site, watch and ward of all materials & successful installation, testing & commissioning at site etc.

The contractor should make his own arrangements for construction power and/or 100% back up power supply (like D.G sets of required capacity) for construction purpose.

Water required for construction and other purposes has to be arranged by Contractor at his own cost.

1.0 Scope of Contract

- 2.1 The scope of work covers the supply, erection, testing and commissioning of the Civil, Plumbing, Electrical, Lift, Fire fighting, Airconditioning Systems, which also includes design & preparation of structural and all other detailed shop drawings, testing and commissioning of components and accessories.
 - Civil works including Pile foundation
 - Plumbing works.
 - Electrical works.
 - Lift works
 - Fire fighting works
 - Air conditioning works
 - Structural glazing works
 - Common area finishing works
- 2.2 The work shall be carried out in conformity with the relevant drawings and the requirement of architectural, electrical, structural, and other specialised service drawings approved by Engineer-in-charge.
- 2.3 The Contractor shall make provision of hangers, sleeves, structural openings and other requirements during construction to avoid holding up progress of the construction schedule. The Contractor should ensure that the structure is designed for additional loads or cut outs. Subsequent Cutting holes in the RCC structural members/ slab shall not be allowed.

- 2.4 The contract items comprises of furnishing of all materials, equipment, labour & transportation etc. necessary to render the installation/ item fully operational as per the intent of specification and drawings, including any necessary adjustment or corrections. Further the installation/item shall be in conformity with local laws and manufacturer instructions applicable.

3 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 or drawings to be issued and approved by the Engineer in charge from time to time for preparation of his detailed sanitary, plumbing & Shop drawings and for subsequent installation work and also cross check the drawings of other services to avoid subsequent complications in inter services. Any discrepancies observed should be immediately brought into the notice of Engineer-in-charge and clarifications obtained. No changes from approved plans shall be made without prior approval of the Engineer-in-charge.

4 Shop Drawings

- 4.1 The Contractor shall furnish for approval of the Engineer-in-charge three sets of detailed sanitary, plumbing, Pump room & Shop drawings of all equipment and materials required to complete the work as per specifications well in advance. 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.
- 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 For any amendments proposed by Engineer-in-charge 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 brought at Site until the Contractor has the approved Shop drawings for that particular material or equipment.
- 4.5 After approval of the drawings by the Engineer-in-charge, the Contractor shall further furnish six sets of Shop drawings for the exclusive use of and retention by the Engineer-in-charge.
- 4.6 Approval of drawings by the Engineer-in-charge shall not relieve the Contractor of any 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-in-charge 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, and it is cause for any interference with the work of other trades, he shall make all the necessary changes without extra cost.

- 4.8 All shop drawings and detail drawings will be made as per requirements of local authorities and tender drawings incorporating all latest regulations and requirements. No separate drawings will be, issued for making shop drawings.

5 Samples and Catalogues

- 5.1 Prior to ordering any equipment/ material/ system, the Contractor shall submit to the Engineer-in-charge the catalogues, along with samples from approved list of manufacturers. No material shall be procured without written approval of the Engineer-in-charge.

5.2 Approval of Materials

All materials used on the Works shall be new and of the best quality and make available, conforming to the relevant specifications of the contract. Prior approval shall be obtained in writing from the Engineer-in-charge for all materials proposed and when necessary, approved samples duly identified and labelled shall be deposited with the Engineer-in-charge and shall be kept in the sample room at Site. List of approved make indicates make/ manufacturer generally acceptability. Final choice of make / manufacturer of material & models shall be with the Engineer-in-charge.

6 Material and Equipment

- 6.1 All material and equipment shall conform to the relevant Indian Standards and bear IS marking where ever applicable.
- 6.2 Where interfacing is involved, both equipments 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-in-charge, requires any re-design of the structure, partitions, foundation, piping, writing 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.

6.5 Approved makes for materials and vendor list

The contractor shall procure materials as scarified in the vendor lists enclosed with Part III, the particular material shall be got approved from the Engineer - in-Charge before procurement.

7 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 such installation/drawings.
- 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 Specifications shall be construed to relieve the contractor 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. The Contractor shall make all necessary arrangements for safety of personnel working at site and ensure that all safety precautions in line with established industry practices are taken and Guide Lines issued by Statutory Authorities are complied with.

8 Manufacturer's Instructions

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 with the approval of Engineer-in-charge.

9 Training and Operating Instructions

- 9.1 If required by the Engineer-in-charge, the Contractor shall at his 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-in-charge.
- 9.2 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-in-charge/HLL authorised representative in operation, adjustments and maintenance of the equipment installed.
- 9.3 The Contractor shall submit to the Engineer-in-charge draft comprehensive operating instructions and maintenance schedule for all systems and equipment included 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-in-charge four (4) complete bound sets of operating and maintenance schedules along with manufacturers printed literature.

10 Inspection and Testing

- 10.1 The Engineer-in-charge reserve the right to request inspection and testing at manufacturer's Works at all reasonable times during manufacture of items for this Contract.
- 10.2 The Engineer-in-charge 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. Approval by the Engineer-in-charge 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.
- 10.3 Routine and typical tests for the various items of equipment shall be performed at the Contractor's Workshop in the presence of Engineer-in-charge or his authorised representative, results recorded and test certificates issued.
- 10.4 After installation has been virtually completed, the Contractor shall carry out under the direction and in the presence of the representative of the Engineer-in-charge such tests and inspections as have been specified, or as considered necessary to determine whether or not the requirements of the item, drawings and specifications have been fulfilled. In case the work does not meet the full intent of the drawings and specifications and further tests after making require changes and as considered necessary shall be done again, the Contractor shall carry them out and bear the expenses thereof. 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.

10.5 The above general requirements as to testing shall be read in conjunction with any particular requirements specified elsewhere

10.6 The Contractor shall provide all necessary instruments such as Theodolite, Dumpy level, steel tapes, weighing machine, plumb bobs, spirit levels, hammers, micro-meters, thermometers, hydraulic cube testing machine, smoke test machine and labour for conducting tests. All such equipments shall be tested for calibration by an approved laboratory. The Contractor shall make adequate records of the test procedures, readings and results to be maintained by the Engineer-in-charge who shall issue test certificates signed by the person authorised by him.

11 Test Certificates

The contractor shall submit test certificates for all the materials/ systems issued by government recognized inspection/ office / manufacturer certifying the Equipment/ Materials/ installation and its function are in agreement with the requirements of relevant specification and accepted standards.

12 Performance Guarantee

It is clearly understood that the specifications, drawings, schedule of quantities are for bidder's guidance only. Complete sets of Architectural Drawings shall be available at site in the Engineer-in-charge 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 specified ratings.

13 Quiet Operation and Vibration

All equipments shall operate under all conditions of designed load without any sound or vibration, which is considered objectionable by the Engineer-in-charge. Such conditions shall be corrected by the Contractor at his own expense. Decision of the Engineer-in-charge shall be final in this regard.

14 Accessibility

The Contractor shall locate all equipment, which require servicing, operation or regular maintenance in a 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 to Engineer-in-Charge well in time, to facilitate working by other agencies, failing this, the Contractor shall make all the necessary repairs and changes at his own expense.

15 Handing over & Taking over process

For handing over & taking over process in addition to clauses specified elsewhere, following services / works shall to be complied by the main contractor:

- a. Submission of Guarantees in stamp paper, of appropriate value, (format approved by Engineer-in-charge 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 (four) sets for Architectural, Structural, Plumbing, Electrical, Fire fighting, Air conditioning and other required drawings as approved by Engineer-in-charge 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 Engineer-in-charge.
- e. Contractor has to arrange water, electricity, fuel, consumables and manpower at their own cost for the purpose of testing of services and equipments. No amount shall be payable on this account.
- 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.

(B) RELATING TO CIVIL WORKS

- (i) All concrete work will be strictly done by automatic computerized batching plant of suitable capacity installed at site or RMC as per approval of Engineer-in-Charge of HLL. No concrete work will be permitted without automatic batching plant unless specifically approved in writing by Engineer-in-Charge of HLL. Transportation of the mix concrete shall be through transit mixers and concrete pumped through suitable concrete pumps and pipes arrangement and vibrated by vibration machines, materials lifts shall also be provided at site as and where required.
- (ii) **Mix Design of Concrete:-** The contractor shall carry out the mix design for the relevant item of concrete from a reputed institution/ laboratories as approved by Engineer-in-charge at his own expenses within 15 days from notification of award. Samples of materials (i.e. Cement, Coarse & fine aggregates) shall be jointly sealed by Engineer-in-charge and contractor before sending the same for Mix design. The design mix may be with or without admixtures as per specifications/ requirements at site.
- (iii) Reinforcement Steel conforming to BIS specifications (latest edition) shall be procured directly from main manufacturers or their authorised dealers as per the approved list provided in the tender document. The manufacturer has to give a certificate that the material supplied is not a re-rolled product. Relevant vouchers & test certificates will be produced by the contractor. Re-rolled sections will not be allowed. Reinforcement steel, structural steel shall be stored and stacked in such manner so as to facilitate easy identification, removal etc. The contractor shall take proper care to prevent direct contact between the steel and the ground/ water for which he shall provide necessary arrangement at his own cost including ensuring proper drainage of area to prevent water logging as per directions of the Engineer-in- charge. Steel shall also be protected, by applying a coat of neat cement slurry over the bars for which no extra payment shall be made. Test certificates for each consignment of steel shall be furnished and further tests shall be got carried out from the authorized laboratory as per the directions of Engineer-in-charge, before incorporating the materials in the work.
- (iv) Marine plywood only or steel plates of minimum thickness as approved by Engineer-in-charge shall be used for formwork. All shuttering material to be used at site will be new/ just like new as approved by Engineer-in-charge. The shuttering plates shall be cleaned and oiled after every repetition and shall be used only after obtaining approval of Engineer's representative at site. The number of repetitions allowed for plywood and steel shuttering shall be at the

discretion of Engineer-in-charge depending upon the condition of shuttering surface after each use and the decision of Engineer-in-charge in this regard shall be final and binding on the contractor. No claim whatsoever on this account shall be admissible.

(v) Anti-termite treatment & waterproofing treatment:-

- a. The treatment against water-proofing of basement, roofs, water retaining areas and termite infestation shall be of type and specifications as given in the schedule of quantities and remain fully effective for a period of not less than 10 (Ten) years to be reckoned from the date of expiring of the Defect Liability period, prescribed in the contract. At any time during the said guarantee period if the Engineer-in-charge or his representative finds any defects in the said treatment or any evidence of re-infestation, dampness, leakage in any part of buildings or structure and notifies the contractor of the same, the contractor shall be liable to rectify the defect or give re-treatment and shall commence the work or such rectification or re-treatment within seven days from the date of issue of such letter to him. If the contractor fails to commence such work within the stipulated period, the Engineer-in-charge or his representative may get the same done by another agency at the Contractor's cost and risk and the decision of the Engineer-in-charge for the cost payable by the contractor shall be final and binding upon him. Re-treatment if required shall be attended to and carried out by the Contractor within seven days of the notice from the client or his representative.
- b. Water proofing and anti-termite treatment shall be got done through approved specialized agencies only with prior approval of the Engineer-in-charge or his representative. During the execution of work, if any damage shall occur to the treatment already done, either due to rain or any other circumstances, the same shall be rectified and made good to the entire satisfaction of the HLL Engineer in charge or his representative by the contractor at his costs and risks.
- c. The contractor shall submit a guarantee bond for the water proofing and anti-termite work executed under the contract in a format specified in the GCC. Further a security deposit amounting to 10% of the cost of these items as executed shall be retained for a period of 10 years with effect from actual date of actual completion of the work. 50% of the security deposit shall be released on successful completion of 5 years period and the balance shall be released on completion of 10 years.

(vi) Records of Consumption of Cement & Steel –

- a. For the purpose of keeping a record of cement and steel received at site and consumed in works, the contractor shall maintain a properly bound register in the form approved by the Engineer-in-charge, showing columns like quantity received and used in work and balance in hand etc. The contractor's representative shall sign this register daily.
- b. The register of cement & steel shall be kept at site in the safe custody of Engineer-in-charge during progress of the work. This provision will not, however, absolve the contractor from the quality of the final product.

C) RELATING TO ELECTRICAL WORKS & INSTALLATIONS

1.0 General

- i. The electrical installation shall be in total conformity with the control wiring

drawings prepared by the Contractor and approved by the Engineer-in-charge & shall be connected and tested in the presence of an authorised representative of the Contractor and of the Engineer - in- Charge.

- ii. The responsibility for the sufficiency, adequacy and conformity to the Contract requirements of the electrical installation work lies solely with the Contractor.

2.0 Regulations and Standards

The installations shall conform in all respects to Indian Standard Code of Practice for Electrical Wiring Installation IS: 732-1989 and as per latest CPWD General Specification for Electrical Works as mentioned in Schedule "F" of General Conditions of Contract. 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 to be done as per CPWD specification & relevant BIS codes.

3.0 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.

4.0 Works to be done by the Contractor :-

Unless and otherwise mentioned in the Bid documents, the following works shall be done by the Contractor, and their cost shall be deemed to be included in the contract price:

- i. Foundations for equipment 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. 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. damages during erection, shall however be rectified by the contractor.
- iv. Testing and commissioning of complete installation

5.0 Completion Certificate by the licensed supervisor

On completion of the installation, a certificate shall be furnished to the Engineer-in-charge, 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.

6.0 Completion Drawings

On completion of the work, the Contractor shall at his own cost submit to the Engineer-in-charge 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 mount a set of all consolidated control diagrams and all piping diagrams in a frame with glass, and display in the plant room

7.0 Interrelationship of Services

The Contractor shall keep a check at all stages and supervise at the point of connection the associated civil, electrical, , fire fighting, air conditioning, plumbing works like underground and overhead tanks, power supply and installation of makeup water connection, drain connection in the vicinity of plant room etc. In case of any discrepancy the same should be brought into the knowledge of Engineer-in-charge in writing, all rectifications etc, required in future as a result of failure on the part of the contractor to do so, shall be carried out by the Contractor at his own expenses.

8.0 Check List

The Contractor shall provide to the Engineer-in-charge 4 (four) copies of a comprehensive maintenance checklist and shall place 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 record of maintenance provided and status of various equipment during the maintenance period. This list shall be updated every month at the time of inspection. The Contractor shall certify on this check list that he has examined each piece of equipment and that; it is operating as intended in the contract.

9.0 Repairs

All equipment that requires repairing shall be immediately serviced and repaired during the maintenance period. All spares/parts and labours shall be furnished by the contractor free of cost.

10.0 Control System

During the maintenance period, the Contractor shall monthly check all controls in various areas to ensure that these are functioning satisfactorily. This shall apply to all pressure switches and pressure gauges, contacts, relays, controller switches, high and low pressure cut-outs etc.

11.0 Reference Points

Contractor shall provide permanent bench marks, flag tops and other reference points in consultation with Engineer-in-charge for the proper execution of work and these shall be preserved till the completion of the work.

12.0 Licenses and Permits

- i. **Contractor** or the approved specialised agency engaged by them shall hold a valid plumbing, electrical license issued by the Competent Authority under whose jurisdiction the work falls.
- ii. 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 the Engineer-in-charge. The documents/ drawings to be prepared and submitted in the manner desired by them after the same is approved by Engineer-in-charge. Contractor has to take approvals of entire/Part works if required before start of works. Contractor will be responsible for any work at site carried out without approval of municipal or local bodies.
- iii. 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.

- iv. Contractor shall obtain from the competent Municipal Authority completion certificates with respect to his work as required for occupation of the building.
- v. Any fees in connection with obtaining the approvals on behalf of the Client from the 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 Engineer-in-charge.
- vi. Before undertaking of works for Electrical, Anti Termite Treatment, Water proofing, Fire fighting, Air conditioning, etc., the contractor must take approval of specialised agencies proposed to be engaged by him from Engineer-in-charge.

13.0 Cutting of structural members

No structural member shall be chased or cut without the written permission of the Engineer-in- Charge.

14.0 Operation and Running of entire system

The contractor shall ensure smooth operation & running of entire sanitary, plumbing, Fire fighting system, air conditioning system, etc. for a minimum period of one month after satisfactory completion of work as desired by Engineer. Cost of such operation & running of entire system including required material e.g. fuel, consumables, tools & tackles, requisite manpower etc. shall be borne by the contractor & deemed to be included in the contract price, nothing shall be paid on this account.

15.0 Regulations and Standards

The installations shall conform in all respects to Indian Standard Code of Practice for Electrical Wiring Installation IS: 732-1989 and as per latest CPWD General Specification for Electrical Works as mentioned in Schedule "F" of General Conditions of Contract. 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 to be done as per CPWD specification & relevant BIS codes.

16.0 Tools for Handling and Erection

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.

17.0 Drawings

The drawings indicate the extent and general arrangements of the fixtures, controlling switches, wiring system etc. and are essentially diagrammatic explanation. 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 the Engineer-in-charge's approval. Contractor has to make necessary changes if any as per comments given by Engineer-in-charge 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 in consultation with the Engineer-in-charge.

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 any discrepancies noticed shall be reported to the Engineer-in-charge for clarification. In case of failure to do so Contractor shall not be entitled to any cost for omissions or defects in electrical drawings due to any conflict with other services work.

18.0 Conduit/ Trunking Layout

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

19.0 Shop Drawings

The Contractor shall prepare and submit to the Engineer-in-charge for his approval detail shop drawings for Main & Sub Panels/ 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 before 15 days of placing of the orders with manufacturers/suppliers.

20.0 Manufacturer's Instruction

Manufacturer instructions for approved products shall be followed in consultation with Engineer-in-charge.

21.0 Materials & Equipment

All materials and equipment shall be ISI marked and shall be of the make and design approved by the Engineer-in-charge. Unless otherwise called for, only the best Grade of materials and equipment shall be used. The Contractor shall be responsible for the safe custody of all materials and equipment till these are taken over by client and shall insure them 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 Engineer-in-charge for his approval and shall be kept in the sample box.

22.0 Scale

All drawings shall be prepared to the scale as required for proper explanation and shall indicate the size and location of all equipments and accessories therein. The Contractor shall follow all dimensions of approved architectural drawings for the work or part concerned and check proposed drawings for any interference with the building structure or other equipment or services.

23.0 Brochures and Data

The Contractor shall submit four copies of all brochures/ manufacturer's description data, operation manuals with internal complete circuit diagrams and other similar literature while obtaining the approval of product Engineer-in-charge.

24.0 Approval of Shop Drawings

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

25.0 Samples & Catalogues

Contractor shall submit the samples & catalogue of the material, which are proposed to be used at Site as per the approved makes for obtaining approval of the by Engineer-in-charge.

26.0 Approval of Materials

All materials used on the Works shall be new and of the best quality available, conforming to the relevant specifications. Prior approval shall be obtained in writing from the by Engineer-in-charge for all materials proposed and when approved, sample shall be duly identified and labelled, it shall be deposited with the by Engineer-in-charge and shall be kept in the sample's room at Site.

27.0 Inspection, Testing and Inspection Certificate

1. The Engineer-in-charge and their authorised representative shall have at all reasonable times access to the Contractor's premises or Works and shall be at liberty to inspect and examine the materials and workmanship during its manufacture or erection even when they are being manufactured or assembled at other premises.
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-in-charge by the Contractor at least fifteen (15) days in advance together with the routine test certificates of the equipments/ materials given by the manufacturer.
3. Notwithstanding approval of tests or equipment by the by Engineer-in-charge, 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. The Engineer-in-charge shall also have the power to order the material or work to be tested by an independent agency at the Contractor's expense in order to prove soundness & adequacy.

28.0 Schedule & Manner of Operation

Time being the essence of this Contract, Contractor shall arrange for all required labour & material in sufficient quantities and at appropriate time, execute as per schedule for execution of work to meet the contract period requirement and so manage the operations that the work shall be completed in time as provided in the contract.

29.0 Performance Guarantee Certificates for Equipment

All equipment shall be guaranteed against unsatisfactory performance and/or break down for a minimum period of 12 (Twelve) months from the date of handing over of complete work to the by Engineer-in-charge. 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-in-charge. The above guarantee and/ or warrantee provided by the manufacturer will be submitted along with all the test certificates from manufacturer to Engineer-in-charge.

30.0 Conformity with Statutory Acts, Rules and Standards

1. All installations shall be in conformity with the Bye-laws, Regulations and Standards of the local authorities applicable them. 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 provided in the contract shall take precedence over the said regulations and standards.

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.
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 up to date.
4. CPWD Specification: as at Schedule "F" of GCC.
5. Indian Standards: The system / components shall conform to relevant BIS wherever they exist and to the National Building Code-2005 with latest amendments / addendums.
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.

31.0 Completion Drawings (As Built Drawings)

1. On completion of the work and before issue of certificate of virtual completion, the Contractor shall submit to the Engineer-in-charge, completion plan drawn to a scale in the manner decided by him including the under mentioned details alongwith one set of computer CD containing the data.
 - a. Run and size of conduits, inspection boxes, junction boxes and pulls boxes
 - b. Number of circuits 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 lightning protection system.
 - n. Insulation tests and earth test results
 - o. Disc Antenna drawings
 - p. Equipment drawings
 - q. External lighting drawing with road layout

32.0 Checking of BOQ Quantities

All quantities indicated in BOQ are tentative which may vary as per site conditions. Contractor has to verify quantities before procuring the materials. No payment shall be

payable for quantity brought to site but not used.

33.0 Training of Personnel

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

- a. Telephone Exchange
- b. All other Equipment like pumps, panels etc.
- c. Adjustment of setting for controls and protective devices
- d. Air conditioning system
- e. Fire fighting equipments
- f. Preventive maintenance
- g. Operation of all electrical panels including their interconnectivity and interlocking scheme
- h. Any other specialized system as executed under this contract

34.0 Completion Certificate

1. On completion of the installation, a certificate shall be submitted to the Engineer-in-charge by the Contractor which shall be countersigned by the agency 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.
2. The Contractor shall be responsible at his own cost for getting the installation duly approved by the authorities concerned.

35.0 Check List

The Contractor shall provide to the Engineer-in-charge, 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 results and status of various equipment each month i.e. 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.

36.0 Repairs

All equipment that requires repairing shall be immediately serviced and repaired during the defect liability period. All parts and labours shall be furnished free of cost to the client.

37.0 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 Engineer-in-charge. The Contractor should, therefore, employ sufficient staff for watch and ward at his own expenses. Engineer-in-charge may, however, allow the Contractor to use the building space for temporary storage of such equipment, if such space is available. The Contractor shall make his own arrangement for safety/Security and Watch & Ward of his staff, materials and also the materials supplied by Employer as free issue or on chargeable basis. If Employer decides to have additional security at site then the Contractor is expected to work within the regulations of such security

38.0 Testing and Commissioning

39.0 Operation and Running of entire system

40.0 Layout of all services, operating and maintenance instructions. DO's and Don'ts's etc for all the plant rooms, pump room, control panels etc must be equipped with coloured layout of services for the each floor. Operation and maintenance manual of the respective services, Do's and don'ts's for all the plants, machinery & services to be installed with every individual units.

Particular Specification for Transformer

The distribution transformer shall be of outdoor and shall be manufactured as per IS/ IEC and should have approved certificate for the ratings specified herein under from CPRI. The details of transformer are :-

- 49

- | | |
|---|-----------|
| 12) Ambient temperature | 50 C |
| 13) Temperature raise | 90 C |
| 14) Losses & Impedence with IS tolarence. | |
| a) No load loss | As per IS |
| b) Full load loss | As per IS |
| c) Impedence | As per IS |

STANDARD FITTINGS

- 1) HV disconnecting chamber.
- 2) LV disconnecting chamber with additional bushing for neutral earthing with Cast Resin Wire Wound Neutral CT of Ratio 1000/5A Class 5P10 15 VA
- 3) Temperature indicator with sensor.
- 4) Bi-directional rollers
- 5) Earthing Terminals 2 Nos.
- 6) Lifting lugs
- 7) 1 No. Sensor in each LV winding wired to scanner with alarm and trip contacts.
- 8) Enclosure protection as per relevant clause for indoor application having high humid and high temperature and set of Limit Switches for safety
- 9) Rating. Terminal Marker & Danger Plates. The transformer shall be suitable to withstand the weather condition and altitude at Chennai. The minimum guaranteed technical particulars of the transformer for various parameters as per IS shall have to be furnished along with the offer.