



TENDER FOR

SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF

WET RISER AT HINDUSTHAN BUILDING, H.B(ANNEX) , 4 C.R AVENUE, KOLKATA – 700 072

TECHNICAL - BID

DATE OF PRE – BID MEETING : AT 11.30 Hrs. on 11-01-2016

LAST DATE OF RECEIPT OF TENDERS : UPTO 15.00 Hrs. ON 19-01-2016

DATE OF OPENING OF ENROLMENT FORM : AT 15.30 Hrs. on 19-01-2016

Life Insurance Corporation of India**Eastern Zonal Office, Kolkata****TENDER FOR SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF WET RISER AT H.B &****H.B(ANNEX) 4 CR AVENUE, KOLKATA – 700 072.****I N D E X**

S. No	PARTICULAR	PAGE NO.
1.	Index	2
2	Instruction in regard to submission of Tenders	3 - 5
3.	Conditions of Contract	6 - 27
4.	Appendix to Conditions of Contract	28 - 29
5.	General Instructions to Contractors	30 – 36
6.	Articles of Agreement (Annexure A & B and C)	37-38
7.	_ Form of BG in lieu of SD	39 – 41
8.	Form of BG for performance guarantee	42 – 44
9.	Form of BG to secure lump sum advance	45 - 47
10	Technical Specifications	48 – 56
11	List of approved makes	57
12	CAMC	58 – 59
13.	Special Conditions of contract	60

CONTRACTOR

EMPLOYER

-

LIFE INSURANCE CORPORATION OF INDIA

INSTRUCTIONS IN REGARD TO SUBMISSION OF TENDERS

NOTE : Tenderer should note that non-compliance of the following instructions will render the tender liable for rejection.

- 1) Tender forms i.e all 3 parts (Enrolment form, Technical Bid and Price Bid) shall be download from the LIC web site www.licindia.in (tender page) from 28-12-2015 to 18-01-2016. The last date of submission of bid is 19-01-2016 up to 15.00 hrs.
- 2) Method of Submission of bids : All 3 bids i.e enrolment form, technical bid and price bid shall be put in separate covers. The DD for processing fee i.e Rs.1000/- (non refundable) shall be put in separate cover and stapled to enrolment form cover, tender cost i.e Rs.1000/- (non-refundable) shall be put in separate cover and stapled to the technical bid cover. The DD for EMD for Rs.72,000/- shall be put in a cover and stapled to the Price bid. All three covers i.e Enrolment form cover, Technical bid cover and Price bid cover along with DD covers shall be put in one cover and properly sealed and the same shall be submitted on or before the last date of submission of the tenders.
- 3) Method of Evaluation : The enrolment form cover will be opened first on the stipulated date. The enrolment form will be scrutinized and those who qualify and fulfill criteria will be intimated and their technical bid will be opened. The date of opening of the technical will be intimated to the all qualified agencies. The technical bids will be scrutinized and those who qualify will be intimated and their price bids will be opened. The date of opening of the price bids will be intimated to the all qualified agencies.
- 4) Tenderers should ensure that their tenders are received before the date and time specified above.
- 5) Contractors are requested to put their firm's endorsement on each page of the tender documents as token of perusal.
- 6) Contractors should fill in all the relevant blanks and put their signature on the relevant places in the tender.
- 6) The schedule of Quantities should be filled as follows :
 - a. The "Rate" column to be legibly filled in ink in both **FIGURES AND WORDS**.
 - b. "Amount" column to be filled for each item and the total amount for each trade to be given.
 - c. All corrections to be initialled.
 - d. Each page of the Schedule of Quantities and the "General Summary" is to be signed by the Contractor.

CONTRACTOR

EMPLOYER

e. Tenderer should note that he is to quote rates only against each item and refrain from making offer of percentage below/above the rates quoted. Such tenders are liable to be rejected.

7) No alterations or additions are to be made by the tenderer to the text or the Schedule of these tender papers. Any tender which proposes any alterations to any of the condition/s laid down or which proposes any other conditions of any description whatsoever is liable to be rejected.

8) The tenderer is required to check the numbers of the pages and should any be found missing or in duplicate, or the figure or writing indistinct, he must inform the Chief Engineer / Issuing Officer at once and have the same rectified. Should the tenderer be in doubt about the precise meaning of any item or figure, for any reason whatsoever, he must inform Chief Engineer in order that the correct meaning may be decided upon before the date for the submission of the tender.

9.) No liability whatsoever will be admitted nor claim allowed in respect of errors in the submitted tender due to missing / duplicate pages, indistinct writing or any other error in the tender documents which should have been rectified in the manner described above.

10) Proforma of Articles of Agreement (Annexure – ‘A’) should not be filled in by the tenderer. While the contract shall be deemed to have come into existence on issue of letter of acceptance to the successful tenderer, formal agreement shall be signed thereafter with the successful tenderer on non-judicial stamp paper of requisite value as per the proforma of Articles of Agreement.

11) Earnest Money accompanying the tender will be accepted only in the form of **“CROSSED DEMAND DRAFT”** of any of the Nationalised Banks / Approved Scheduled Banks drawn in favour of the **“LIFE INSURANCE CORPORATION OF INDIA”** payable at _____ only, and not in favour of any other Authority or location. **(The Demand Draft must be in a separate sealed envelope super-scribed as demand draft towards the EMD amount of the tender.)**

12) The tender shall be accompanied by a certified true copy of Power of Attorney in favour of the signatory to the tender documents. If the tender is submitted on behalf of a firm, it must be signed either by all partners or person holding a valid power of attorney from all partners constituting the firm. The person signing the tender on behalf of another partner(s) or on behalf of a firm on Company shall attach with the Tender a proper Power of Attorney duly executed in his favour by such other person(s) or by all the partners in accordance with the Constitution of the Company / Articles of Association, stating that he has the authority to sign on behalf of such other person(s) of the firm or the Company as the case may be, in all matters pertaining to the contract including the Arbitration Clause.

13) **The tender copy (comprising Part – I & Part – II) marked ‘ORIGINAL’ should be submitted in a sealed envelope which is supplied with tender papers.**

14) The rates mentioned in the tender copy marked **‘ORIGINAL’** will be taken as bonafide. When the rates in figures and words are at variance, the rate corresponding to the

CONTRACTOR

EMPLOYER

amount shall be taken as correct. In all other cases rate in words will be taken in precedence over the rate in figures.

15) Tenders containing errors are liable to be considered non-bonafide at the discretion of the Chief Engineer

16) Tenderer should note that tender should remain open for consideration for a minimum period of **THREE MONTHS** from the date fixed for the receipt of tenders.

17) The Life Insurance Corporation of India reserves the right to accept any tender or to accept tenders in part; to reject any or all tenders without assigning reasons thereof.

18) Contractors should fill in “**RATE**” column in the **SCHEDULE OF QUANTITIES** legibly in ink in both **FIGURES** and **WORDS**. Rates mentioned in words shall be prefixed and suffixed by “**Rs.**” And “**only**” respectively. Tenders containing the rates only in figures are liable to be considered non-bonafide at the discretion of the Chief Engineer and entail forfeiture of Earnest Money Deposit.

LIFE INSURANCE CORPORATION OF INDIA
CONDITIONS OF CONTRACT

1. INTERPRETATIONS:

1.1 In construing these Conditions, the Specifications, the Priced Schedule of Quantities, Tender and Agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise requires.

1.2 “Employer” shall mean THE LIFE INSURANCE CORPORATION OF INDIA and his (their) heirs, legal representatives, assignees and successors.

1.3 “Chief Engineer” shall mean the person occupying the post of head of the Zonal Engineering Department of the Corporation.

1.4 “Corporation’s Engineers” shall mean such Deputy Chief Engineers, Superintending Engineers and/or Executive Engineers of the Corporation, who shall from time to time be appointed by the Chief Engineer for supervising the work carried out by the Contractor or for any purpose in connection therewith:

1.5 The term “Site Engineer” shall mean the person appointed and paid by the Employer, acting under the order of the Corporation’s Engineer to superintend the work.

1.6 The Contractor shall mean, the individual, firm or company whether incorporated or not, who is awarded the contract & shall include the legal representative of such individual or the persons composing such firm or company or the successors of such individual, firm or company & the permitted assignees of such individual, firm or company.

1.7 The “Site” shall mean the lands/buildings and/or other places on, in, into or through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

1.8 “This Contract” shall mean the Articles of Agreement, these Conditions, the General Instructions to Contractor, General Preambles to Schedule of Quantities, Special Conditions, the priced Schedule of Quantities, the Specifications, the Appendices, the Drawings and other related correspondence.

1.9 “Act of Insolvency” shall mean any act of insolvency as defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any amending Statute.

1.10 “Notice in Writing” or written notice shall mean a notice in written, typed or printed characters, sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.

CONTRACTOR

EMPLOYER

1.11 Words importing persons include Firms and Corporations, words importing the singular only also include the plural and vice versa where the context so requires.

1.12 The titles of the Clauses shall not affect or alter the meaning of Clauses and are solely for the purpose of facilitating reference.

1.13 The following abbreviations shall be followed for the designations of various LIC Officers:

DESIGNATIONS

ABBREVIATIONS

Executive Director (Engineering)	E.D.(E)
Zonal Manager	Z.M.
Chief Engineer	C.E.
Chief Architect	C.A.
Deputy Chief Architect	D.C.A.
Deputy Chief Engineer	Dy.C.E.
Superintending Engineer	S.E.
Senior Architect	S.A.
Executive Engineer	E.E.
Deputy Senior Architect	D.S.A.
Asstt. Secretary	A.S.

1.14 Wherever the words “approved”, “directed”, “as required”, “selected” or words of like effect are used, it is to be understood that the approval/direction, requirement or selection of the Corporation’s Engineer are intended unless otherwise specified.

1.15 The words “as described” shall mean the description in the Special Conditions, Specifications, General Instructions, Drawings etc. of this tender.

1.16 The words “allow” shall mean that the Contractor shall include in his rates for the particular matter referred to.

1.17 “Day Work” shall mean items of labour and/or materials which in the opinion of the Corporation’s Engineer are not capable of being evaluated by the accepted method of measurement and analysis.

2. SCOPE OF CONTRACT:

2.1 The Contractor shall carry out and complete the works in every respect in accordance with this Contract and in accordance with the directions and to the satisfaction of the Corporation's Engineer. The Corporation's Engineer may issue further drawings and/or written instructions, details, directions and explanation in regard to:

- a. The variation or modification of the Design, quality of works or the addition or omission or substitution of any work;
- b. Any discrepancy in the Drawings or between the Schedule of Quantities and/or Drawings and/or Specifications;
- c. The removal from the site of any materials brought thereon by the Contractor and the substitution of any other material thereof;
- d. The removal and/or re-execution of any work executed by the Contractor;
- e. The dismissal from the work of any persons employed thereupon;
- f. The opening up for inspection of any work covered thereupon;
- g. The amending and making good of any defects under relevant Clause giving details of defects after completion.

2.2 The Contractor shall forthwith comply with and duly execute all works comprised in such Instructions subject to the provisions of relevant specific conditions of the Contract. In the event of any dispute or difference of opinion the contractor shall refer the matter within 7 (seven) days of the issue of such instruction to the Chief Engineer whose decision shall be final & binding.

3. DISCREPANCIES:

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

3.2 The several documents forming the Contract are to be taken as mutually explanatory of one another, and the order of precedence shall be as follows;

- a) Special conditions
- b) General preambles to schedule of quantities
- c) General instructions
- d) Conditions of contract

3.3 In case of discrepancies between the Schedule of Quantities, the specifications and/or drawings the following order of precedence shall be observed

- (a) Description in Schedule of Quantities

CONTRACTOR

EMPLOYER

- (b) Specifications of relevant Trade
- (c) Drawings; detailed drawings shall be followed in preference to small scale drawings and figured dimension in preference to scale.
- (d) Indian Standard Specifications of 'BIS'

4. DRAWINGS AND SCHEDULE OF QUANTITIES:

4.1 Two complete sets of the Drawings and Specifications and Schedule of Quantities shall be furnished by the employer to the contractor. Two copies of the additional Drawings, if any, shall be furnished within such time as the Chief Engineer may consider reasonable which may be necessary for execution of any part of the work. Such copies shall be kept on the work site and the CE and his representatives shall at all reasonable times have access to the same and they shall be returned to the EE by the Contractor on completion of the contract.

This Contract and the signed Drawings, Specifications and Schedule of Quantities shall remain in the custody of the Employer.

5. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY FOR EXECUTION OF WORK:

5.1 Contractor shall provide everything necessary for the proper execution of the work according to the intent & meaning of the Drawings, Priced Schedule of Quantities and Specifications taken together, whether the same may or may not be explicitly shown or described therein provided that the same can reasonably be inferred there-from and if the Contractor finds any discrepancy therein he shall immediately and in writing refer the same to the CE whose decision shall be final and binding on the Contractor.

5.2 The Contractor shall supply, fix and maintain at his cost during the execution of any work all the necessary Centering, Scaffolding, Staging, Planking, Timbering, Strutting, Shoring, Pumping, Fencing, Boarding, Watching and Lighting by night as well as by day, required not only for the proper execution and protection of the said work but also for the protection of the Public and the safety of any adjacent Roads, Streets, Cellars, Vaults, Ovens, Pavements, Walls, Houses, Buildings and all other erections, matters or things and the Contractors shall take down and remove any or all such Centering, Scaffolding, Staging, Planking, Timbering, Strutting, Shoring, etc., as occasion shall require or when ordered to do so, and shall fully reinstate and make good all matters and things disturbed during the execution of the work to the satisfaction of the Corporation's Engineer.

6. AUTHORITIES NOTICES AND PATENTS:

6.1 The Contractors shall conform to the provisions of any Acts of the Legislature relating to the work and to the Regulations and Bye-Laws of any Authority and or any Water, Lighting and other Companies and/or Authorities with whose system the structure is proposed to be connected and shall before making any variations from the Drawings or Specifications that may be necessitated by so conforming give to the CE written notice specifying the variations proposed to be made and the reasons for making them and apply for instructions thereon. In case the Contractor shall not within 7 (seven) days receive such instructions, he shall proceed with the work conforming with the Provisions, Regulations or Bye-Laws in question.

CONTRACTOR

EMPLOYER

6.2 In particular, the Contractors shall be responsible to Register themselves under the Contract Labour (Regulation & Abolition) Act 1970 and Rules there-under and any amendment thereto; they must comply with and carry out all the provisions and obligations under the said Act and Rules and furnish all information to Employer as may be required by it and shall indemnify the Employer against any penalties/claims arising from any default on their part.

6.3 The Contractor shall arrange to give all notices required by the said Acts, Regulations or Bye-Laws to be given to any Authority and to pay to such Authority or to any Public Office all fee that may be properly chargeable in respect of the work and lodge the receipts with the Employer.

6.4 The Contractors shall indemnify the Employer against all claims in respect of patent, rights, and shall defend all actions arising from such claims unless he has informed the Chief Engineer before any such infringement and received his permission to proceed and shall himself pay all royalties, licence fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereof.

6.5 The Contractor should observe that his work shall not cause any nuisance to the Public in general and to the neighbouring occupants in particular.

6.6 Should the Contractor desire to work on Sundays, Holidays and during night hours, permission in writing from the Corporation's Engineer must be obtained in time. It shall be the responsibility of the Contractor to obtain permission from Civil Authorities, if necessary.

7. SETTING OUT WORK:

7.1 The Contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the corrections of the positions, levels, dimensions and alignment of all parts thereof. If at any time any error shall appear during the progress of any part of the work, the Contractor shall at his own cost rectify such error, if called upon, to the satisfaction of the Corporation's Engineer. The Contractor must not commence work until the outlines of the building and Centre line layout have been pegged out and approved by the Corporation's Engineer.

8. CONTRACTOR IMMEDIATELY TO REMOVE OFFENSIVE MATTER:

8.1 All soil, filth or other matter of an offensive nature taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the surface, but shall be at once carted away by the Contractor to some pit or place provided by him.

9. MATERIALS AND SAMPLES:

9.1 All the materials stores and equipment required for the full performance of the Contract must be provided through normal trade channels and must include octroi, excise and import duties, sales tax payable to all authorities and other charges. They shall be of approved quality and the best of their kind available and the

CONTRACTOR

EMPLOYER

Contractor must be entirely responsible for the proper and efficient carrying out of the work. The Contractor shall order all materials required for the execution of the work from local/outside sources as early as necessary to the satisfaction of the Corporation's Engineer and to ensure that such materials are on site well ahead of requirement for use in the work.

9.2 Before ordering such materials, the Contractor shall get samples of the materials approved well in time. Preference shall be given to ISI marked products and approved brands of requisite quality as mentioned in the tender. For materials, which are neither approved brands nor ISI marked, the same shall be got tested from approved laboratories at the Contractor's cost before approval. Approved brand and ISI marked product will also be tested if desired by the CE and if the test results are satisfactory, the cost of testing shall be borne by the Employer otherwise by the Contractor. No claim will be allowed for delay to the progress of work caused by test. If called upon by the Executive Engineer the Contractor shall produce proof for having arranged for the supply of materials well in time.

9.3 The Contractor shall furnish well in time before work commences at his own cost, any samples of workmanship that may be called for by the Corporation's Engineer for his approval and any further samples in case of rejection until such samples are approved. Such samples when approved shall be the minimum standard for the work to which they apply. In case of items like suspended ceiling, partitions, etc. typical sample panels or proto-types shall be erected in position for approval before undertaking work. Rates quoted shall cover for such preliminary work.

10. ACCESS:

10.1 Any of the Corporation's Engineers or any persons authorised by any one of them shall at all reasonable time have free access to the work and/or the workshops, factories or other places where materials are being prepared or constructed for the Contract and also to any place where the materials are lying or from which they are being obtained and the Contractor shall give every facility to all of them necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the Public Authorities, no person shall be allowed on the work at any time without the written permission of the Corporation's Engineer.

If any work is to be done at a place other than the site of the work, the Contractor shall obtain the written permission of the Corporation's Engineer for doing so.

11. CONTRACTOR'S SUPERVISION & MINIMUM REQUIREMENT OF TECHNICAL STAFF:

11.1 The Contractor shall either himself supervise the execution of the contract or shall depute an experienced foreman supervised by the Chief Engineer/ Dy. Chief Engineer and Executive Engineer, Western Zone, and who shall be constantly in attendance at the building while the lift erection work is proceeding. Any directions, explanations, instruction or notices given by the Corporation's Engineer to such foreman shall be deemed to be given to the contractor.

11.2 Corporation's Engineer shall have power to give notice to the contractor or to his foreman of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Chief Engineer, W.Z.O is obtained. The work will from time to time be

CONTRACTOR

EMPLOYER

examined by the Chief Engineer/ Dy. Chief Engineer W.Z. and the corporation's Engineers but such examination shall not in any way exonerate the contractor from the obligations to remedy and defects which may be found to exist in such of the work or after the completion of the same.

If the contractor fails to employ suitable person(s) to supervise the work or fails to appoint replacement(s) when necessitated, amount as stipulated in the Appendix to the conditions of contract shall be recovered from the contractor for each Engineer and each supervisor for the period of non-employment.

12. DISMISSAL OF WORKMEN:

12.1 The Contractor shall, on the instruction of the Corporation's Engineer, immediately dismiss from the work any person employed thereon, who may, in the opinion of the Corporation's Engineer, be unsuitable or incompetent or who may misconduct himself and such person shall not be again employed or allowed on the work without the permission of the Corporation's Engineer.

13. DATES OF COMMENCEMENT AND COMPLETION:

13.1 The "Date of Commencement" shall be as stated in the Work Order and the Contractor shall thereupon and forthwith begin the work and shall regularly proceed with and complete the same on or before the "Date of Completion" stated in the Work Order, subject to the provisions for extension of time hereinafter contained.

14. ASSIGNMENT:

14.1 The whole of the work included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet the Contract or any part, share of interest therein nor shall he take a new partner without the written consent of the CE and no subletting shall relieve the Contractor from the full and entire responsibility of the Contract or from the active superintendence of the work during its progress.

15. DEVIATION, VARIATION, EXTRA/DEVIATED ITEMS AND PRICING:

15.1 The Contractor should note that unless otherwise stated, the tender is strictly on Item Rate basis and his attention is drawn to the fact that rates for each and every item should be correct, workable and self supporting. The quantities in the Schedule of Quantities approximately indicate the total extent of work and no variation i.e. additions, omissions or subtractions shall vitiate the Contract. No liability shall attach to the Employer for any error therein or variation there-from.

15.2 The contractor may when authorized and shall when directed, in writing by the CE or the Corporation's Engineers, whom the CE may for that purpose appoint, add to, omit from, make alterations in, substitutions for, or vary the works shown upon the Drawings or described in Specifications or included in the priced Schedule of Quantities but the Contractor shall make no additions, omissions, alterations, substitutions or variations without such authorization or direction. A verbal authority or direction by the CE, if confirmed by the contractor in writing within 7 (seven) days, be deemed to have been given in writing.

CONTRACTOR

EMPLOYER

15.3 The rates of such altered, additional or substituted works shall be determined in accordance with the following:

- a) The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.
- b) The net price of the items in the original tender shall determine the value of the items omitted. However, if omissions vary the conditions under which any remaining items of the work are carried out or if the amount of any omission relative to the amount of the whole of the Contract works or to any part thereof shall be such that in the opinion of the Chief Engineer, the net rate or price contained in the Priced Schedule of Quantities or Tender or for any item of work involves loss or expenses beyond that reasonably contemplated by the Contractor and is by reason of such omission rendered unreasonable or inapplicable, the Chief Engineer shall fix another rate or price as in the circumstance he shall think reasonable and proper.
- c) If the rate for any altered, additional, or substituted item of work is not specified in the schedule of quantities, the rate for that item shall be derived from the rate for the nearest similar item specified therein.
- d) If the rate for altered, additional or substituted item of work cannot be determined in the manner specified above, then such items of work shall be priced on the basis of coefficients of labour and materials as given in the latest CPWD rate analysis handbook and rates for labour and materials wherever applicable shall be the market rate prevailing at the time of execution.
- e) Where such co-efficient are not available in C.P.W.D. rate analysis, the actual Labour/Materials involved and recorded by the Executive Engineer in executing the items shall be considered.
- f) Where extra work cannot be properly measured or valued, the Contractor shall be allowed "Day Work" prices at the net rates stated in the Tender or the Priced Schedule of Quantities or, if not so stated, then in accordance with the local "Day Work" rates and wages for the district, provided that in either case vouchers specifying the date and time (and if required by the EE the names of workmen employed) and materials incorporated be delivered for verification to the EE or his representative at or before the end of the week following that in which the work has been executed. The EE is not bound to recognize the cost of materials furnished in vouchers; the CE at his discretion will fix the price of such materials based upon market value.
- g) Items for which the rates, as assessed by the employer are higher or lower by more than 35% of the market rates shall be termed as Abnormally High Rated Items (AHRI) and Abnormally Low Rated Items (ALRI) respectively. The deviation limit for variation in quantities of AHRI & ALRI shall be 25% in

CONTRACTOR

EMPLOYER

foundation and plinth, and 5% in super-structure. Quantities in excess of the deviation limit shall be treated as extra items of work and priced accordingly as above. The decision of the Chief Engineer on categorization of items as AHRI / ALRI shall be final and binding.

h) For all extra items of work, the contractor should submit to the concerned Corporation's Engineer the necessary particulars along with his analysis and the rate he proposes to claim for consideration within a period of 4 (four) weeks from the time of cropping up of any authorized extra / deviated item. He shall also ensure that all the authorized claims are included in the final bill. If the contractor fails to submit his claim within the stipulated period or the period duly extended by the Corporation's Engineer, then the CE shall proceed to fix the rate for the item(s) and the same shall be final and binding on the contractor.

i) The Contractor shall note that Extra/Deviated items claim and/or any other claim whatsoever if submitted after submission of his Final Bill, will not be entertained and considered by the Employer. The Contractor shall not be allowed to make any Additions/ Alterations/ Revisions / Changes/ Modifications/ Variations in the final bill, after the final bill is submitted by him.

16. SUB-CONTRACTORS:

16.1 All specialist Merchants, Tradesmen and others, executing any work or supplying, fixing any goods for which provisional sums are included in the Schedule of Quantities and/or Specifications, who may be nominated or selected by the CE, who shall be the final authority are hereby declared to be Sub-Contractors and are herein referred to as nominated Sub-Contractors.

16.2 No nominated Sub-contractor shall be employed on or in connection with the work against whom the Contractors shall make reasonable objection or (save where the CE and the Contractor shall otherwise agree) who will not enter into a Contract providing:-

- a) That the nominated Sub-Contractor shall indemnify the Contractor against the same obligation in respect of the Sub-Contractor as the Contractor is under, in respect of this Contract;
- b) That the nominated Sub-Contractor shall indemnify the Contractor against claims in respect of any negligence by the Sub-Contractor or his servants or agents or any misuse by him or them of any scaffolding or other plant or the property of the Contractor or under any Workmen's Compensation Act in force.

17. THIRD PARTY LIABILITY, DAMAGE TO NEIGHBOURING PROPERTY, LOSS OF MATERIAL AND WORKMEN'S COMPENSATION:

17.1 The Contractor shall be responsible for all injury to persons, animals or things, and for all damage to structural and/or decorative part of property which may arise from the operations or neglect of himself or of any Sub-contractor or any of his Sub-Contractor's employees, whether such injury or damage arise from

CONTRACTOR

EMPLOYER

carelessness, accident or any other cause whatsoever in any way connected with the carrying out of his Contract. This Clause shall be held to include inter-alia, any damage to Building, whether immediately adjacent or otherwise and any damage to roads, streets, footpaths, bridges, or ways as well as all damage caused to the building, and the works forming the subject of this Contract by frost, rain, wind or other inclemency of the weather. The Contractor shall fully indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of all and any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of any award or compensation or damages consequent upon such claim.

17.2 The Contractor shall fully indemnify the employer against any loss, damage or deterioration for whatever reason, of all materials brought at site and especially material supplied by or paid for partly or wholly by the employer.

17.3 The Contractor shall reinstate all damage and loss of every sort mentioned in this Clause so as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of the third parties.

17.4 The Contractor shall fully indemnify the Employer against all claims which may be made against the Employer by any member of the Public or other third party in respect of anything which may arise in respect of the works or in consequence thereof.

17.5 The contractor shall at his own expense arrange to effect from the date of commencement & maintain till the date of virtual completion of contract, with any licensed general insurance company, a **POLICY OF INSURANCE** to cover all such risks detailed above viz. loss, damage & third party liability etc. The policy shall be of adequate amount and in the joint names of the employer & contractor and shall be deposited with the employer and renewed as required from time to time during the currency of the contract.

17.6 The Contractor shall also fully indemnify the Employer against all claims which may be made upon the Employer, whether under the **WORKMEN'S COMPENSATION ACT** or any other **STATUTE** in force during the currency of this Contract or at Common law in respect of any Employee of the Contractor or any Sub-Contractor and shall at his own expense effect and maintain until the Virtual completion of the work, with "licensed General Insurance Company" a **POLICY OF INSURANCE** of adequate amount in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with the employer & renew the same as required from time to time during the currency of the Contract.

17.7 The Contractor shall be responsible for anything, which may be excluded from the Insurance Policies above referred to, and also for all other damage to any property arising out of or incidental to the negligence or defective carrying out of the Contract.

CONTRACTOR

EMPLOYER

17.8 The amount of insurance to be taken for the above policies will be jointly decided between the contractor and the employer before issue of acceptance letter based on the tendered cost, nature of work, location of site, local hazards etc.

17.9 In default of the Contractor insuring as provided above, or having insured failing to renew the same as required the Employer on his behalf may so insure/renew and may deduct the premiums paid from any monies due or which may become due to the Contractor together with penalty as the CE deems appropriate.

17.10 The Contractor shall also fully indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings at law and also in respect of any award of compensation of damages arising there from.

17.11 The Employer shall be at liberty and is hereby empowered to deduct fully the amount of any damages, compensation costs, charges and expenses arising or accruing any such claim of damage from any sum or sums due or to become due to the Contractor.

18. DELAY AND EXTENSION OF TIME:

18.1 If the works be delayed due to any of the following:

- (a) by force majeure ,
- (b) by reason of any exceptionally inclement weather,
- (c) by reason of proceedings taken or threatened by, or disputes with, adjoining or neighboring owners, or public authorities,
- (d) by the work, or delays, of other Contractors or Tradesmen engaged by the Employer,
- (e) by reason of any additional work or instruction ordered by the employer,
- (f) by reason of Civil Commotion, local commotion of workmen or strike or lock-out affecting any of the building trades,
- (g) in consequence of the Contractor not having received in due time necessary instructions from the CE for which he shall have specifically applied in writing,
- (h) from other causes which the CE may certify as beyond the Control of the Contractor,
- (i) by reason of non-payment of interim certificate at specified time,

then upon the happening of any such event causing delay the contractor shall immediately, give notice thereof in writing to the Corporation's Engineer, but shall nevertheless use constantly his best endeavors to make good this delay.

18.2 Request for extension of time shall be made by the contractor at the earliest but not later than 14 (fourteen) days of the event causing the delay.

18.3 In case of strike or lockout the Contractor shall give written notice thereof to the CE as soon as possible but he shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the CE to proceed with the work.

18.4 The CE shall make a fair and reasonable assessment of the delay and grant extension of time accordingly. Such extension shall be communicated to the contractor by the Corporation's Engineer within 3 (Three) months of the date of receipt of such request. Non-application by the contractor for extension shall however not be a bar for giving fair and reasonable extension which shall be as decided by the CE.

CONTRACTOR

EMPLOYER

18.5 The decision of the CE as communicated by the Corporation's Engineer to the contractor on the extension of time shall be final & binding.

18.6 No claim in respect of compensation or otherwise, howsoever arising, as a result of extension granted under the above conditions shall be admissible.

19. DAMAGE FOR NON-COMPLETION:

19.1 If the Contractor fails to complete the work by the date of completion stated in the "Appendix to Condition of Contract" or within time properly extended under Clause (18) hereof and the CE certifies in writing that in his opinion the same ought, reasonably so, to have been completed, the Contractor shall pay or allow the Employer the sum named in the Appendix as "Liquidated Damages" for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any money due to the Contractor. In case liquidated damages in accordance with the above provision accrue to maximum limit as mentioned in the Appendix to the Conditions of the Contract, the Chief Engineer shall be at liberty to rescind the Contract and to get it completed entirely at the risk and cost of the Contractor through any other agency he decides to appoint. All extra expenses incurred shall be recoverable from the money due to Contractor or lying to his credit with the Employer against the present or any other Contract.

20. FAILURE BY CONTRACTOR TO COMPLY WITH CE'S INSTRUCTIONS :

20.1 If the Contractor after receipt of written notice from the CE, requiring compliance with such further Drawings and/or his instructions, fails within 7 (seven) days to comply with the same the CE may employ and pay other persons to execute any such work whatsoever as may be necessary to give effect thereto and all additional costs incurred in connection therewith shall be deducted from any money due or to become due to the Contractor.

21. MEASUREMENT OF WORK:

21.1 All items having a financial value shall be entered in the Measurement Book. All measurements and levels shall be taken jointly by the Site Engineer or his authorised representative and by the Contractor or his authorised representative from time to time during the progress of the work and such measurements shall be signed and dated by both the parties in token of their acceptance. If the Contractor objects to any of the measurements recorded, a note shall be made to that effect with reason, signed by both parties and referred to EE whose decision in the matter shall be final and binding. Measurements can also be recorded through electronic medium where specifically approved by Chief Engineer.

21.2 If the contractor or his authorised representative does not remain present at the time of such measurements after the contractor or his authorised representative has been given a notice in writing 3 (three) days in advance or fails to countersign or to record objections within a week from the date of measurement, then, such measurements recorded in his absence by the Site Engineer shall be deemed to be accepted by and binding on the Contractor.

CONTRACTOR

EMPLOYER

21.3 The Contractor shall, without any extra charge provide all assistance with every appliance, labour and other things necessary for taking measurements and recording levels including test checking of such measurements by any person authorised by the Employer.

21.4 All work shall be measured net as fixed in its place. All measurements of 'cutting' shall be held to include for the consequent wastage on the materials used.

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

21.6 Measurements of all hidden/concealed items of work including extra items if any, such as, work in foundations including excavations, plinth filling, masonry, concrete etc. steel in all R.C.C. work, pipe to be encased etc. shall be jointly recorded by the Site Engineer or his authorised representative and the Contractor's Site Engineer, before they are covered up. Immediately after the work is ready for measurements, Contractor will give specific notice to the Site Engineer for recording the measurements. If the Site Engineer or his authorised representative fails to record the measurements, the Contractor will refer the matter to the Corporation's Engineer for instructions, but in no case shall cover up work without the latter's permission.

22. PAYMENTS:

22.1 The Contractor shall be paid by the Employer after completing the minimum value of work of Rs.12,00,000/- (Rupees twelve lakhs) , however final payment will be released after holding 10% of the contract amount and the same will be released on expiry of Guarantee Period. However, the same may be released if the contractor furnishes Bank Guarantee for equivalent amount valid for one year from the date of completion.

22.2 Provided always that the issue by the Corporation's Engineer of any Certificate during the progress of the works or after their completion shall not relieve the Contractor from his liability in cases of fraud, dishonesty or fraudulent concealment relating to the work or materials or any matter dealt with in the Certificate in case of all defects and insufficiencies in the work or materials which a reasonable examination would not have disclosed. No Certificate of the Corporation's Engineer shall of itself be conclusive evidence that any work or materials to which it related are in accordance with the Contract;

22.3 Payment upon the Corporation's Engineer's Certificate shall be made within the periods named in the Appendix "Period for honoring Interim Certificate" after such a Certificate has been delivered to the Employer;

CONTRACTOR

EMPLOYER

22.4 The CE shall have power to withhold any Certificate if the work or any parts thereof are not being carried out to his satisfaction.

22.5 The measurements and valuation in respect of the Contract shall be completed within the "period of Final Measurement" stated in the Appendix or if not so stated then within six months of the completion of the contract works as defined in Clause (26) hereof. No further claim shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.

23. SECURED ADVANCE AGAINST MATERIALS

23.1 The Contractor shall be entitled to be paid advance along with interim bill against materials which are not perishable and which are in the opinion of Corporation's Engineer, required for the works and have been brought on site for incorporation in the work but have not been so incorporated and are safeguarded against loss due to any cause whatsoever, (refer clause no-17). The amount of such advance against materials shall be arrived at on the following basis:

a) 80% of the market value of materials required for the work and brought on site.

OR

80% of the cost of such materials (brought on site) as derived from the relevant accepted tender rate for the particular item involving such materials. Whichever is lower.

b) Such advance payment made against materials shall be recovered from or adjusted from the interim bills as and when the materials are utilized in the work.

Examples of certain perishable materials on which no advance shall be paid are Sand, Paint, Bitumen, Hard Boards/Soft Boards and other paper products, Petroleum Products, Coal Tar, Insulating Boards etc.

23.2 In case of dispute, the decision of the Chief Engineer on whether advance payment can be made against specific materials shall be final and binding.

24. UNFIXED MATERIALS AND EQUIPMENTS:

24.1 All tools, plants and materials brought to the site by the Contractor shall vest in the Employer and shall not be removed from the site of works except by permission of the Corporation's Engineer in writing. The Employer shall have a lien on these materials and plants.

25. REMOVAL OF IMPROPER WORK:

CONTRACTOR

EMPLOYER

25.1 The Corporation's Engineer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or as may be specified in the order, of any materials, which in their opinion are not in accordance with the Specifications or instructions, the substitution of proper materials and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the Drawings and Specifications or Instructions and the Contractor shall forthwith carry out such an order at his own cost. In case of default on the part of the Contractor to carry out such an order, the CE shall have the power to employ other persons to carry out the same and all expenses consequent thereon or incidental thereto as certified by the EE shall be borne by the Contractor and may be deducted from any amounts due or that may become due to the Contractor.

26. VIRTUAL COMPLETION:

26.1 The work shall be completed in accordance with the Contract and to the entire satisfaction of Chief Engineer. All unused materials, tools, plants, scaffoldings, temporary structures, hutments and things belonging to the Contractor shall be removed and the site of works cleared of rubbish and all waste materials by the contractor at his own expenses and delivered up tidy to the employer. After completion of the work, the contractor will serve a written notice to the CE to this effect. The Chief Engineer after satisfying himself shall thereupon approve the virtual completion. The Defect Liability Period shall commence from the date of such certification.

27. DEFECTS AFTER COMPLETION:

27.1 The equipment supplied and erected shall be guaranteed against defective workmanship, defective material and defective performance for a minimum period of 12 (Twelve) months to be reckoned from the date the lifts are handed over at site of work. Any defect or defects in performance, workmanship or material arising during the guarantee period shall be rectified by the contractor under this contract free of cost to Life Insurance Corporation of India. During the guarantee period the lifts shall be serviced by the contractor by deputing once every month or earlier when directed by Life insurance Corporation of India. Any supply of oil, grease required for servicing of the equipment shall be supplied by the contractor at his cost during the guarantee period. In addition to the servicing of the equipment as above, the contractor shall attend to all the breakdown calls during this period of 12 months at his own cost. All the traveling expenses , incidental charges, etc. incurred for deputing the personnel for carrying out servicing will have to be borne by the contractor.

28. PROVISIONAL SUMS, APPLICATION OF:

28.1 For all the work listed under items for which provisional sums are provided in the tender, the CE reserves the right to invite separate tenders or select or order from any manufacturer or firms at his discretion and reserves to himself the right of paying direct to persons or firms for any such work. The Contractor will not have any claims over these items, but if tenders are invited for such items, he will also be invited to quote along with others.

28.2 If ordered by the CE, Contractor shall be required to carry out provisional sum items at the same conditions and rates as applicable for this Contract.

CONTRACTOR

EMPLOYER

29. OTHER PERSONS ENGAGED BY THE EMPLOYER:

29.1 CE reserves the right to execute any work not included in this Contract, which he may desire to have carried out, by other persons and the Contractor shall allow all reasonable facilities and the use of his scaffolding and plant for the execution of such work, but is not required to provide any special plant or materials for the execution of such work except by special arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the work included in the Contract and the Contractor shall not be responsible for any damage or delay which may happen to or be occasioned by such work.

30. SUSPENSION BY THE CONTRACTOR:

30.1 If the Contractor except on account of any legal restraint upon the Employer preventing the continuance of the work, shall suspend the work or in the opinion of the CE shall neglect or fail to proceed with due diligence in the performance of his part of the Contract or if he shall make default in respect of Clause No.2, the Employer shall have the power to give notice in writing to the Contractor requiring that the work be proceeded within a reasonable manner and with reasonable dispatch. Such Notice shall purport to be a notice under this clause. After such notice is given, the Contractor shall not be at liberty to remove from the site of the work or from any ground contiguous thereto any plant or materials belonging to him, which shall have been placed thereon for the work and the Employer shall have a lien upon all such plant and materials to subsist from the date of such notice being given until the notice shall have been complied with. If the Contractor shall fail for 7 (seven) days after such notice given to proceed with the work as therein prescribed, the CE may proceed as provided in Clause No.31.

31. DETERMINATION OF CONTRACT BY EMPLOYER:

31.1 If the Contractor (being an individual or a firm) commit any "Act of Insolvency" or shall be adjudged as Insolvent or shall make an assignment or composition of the greater part in number or amount of his creditors or shall enter into a deed of assignment with his creditors, or being an Incorporated Company shall have an order made against him or pass an effective resolution for winding up either compulsorily or subject to the supervision of the Court or Voluntarily or if the official Assignee of the Contractor shall repudiate the Contract or if the official Assignee or the Liquidator in any such winding up shall be liable within 7 (seven) days after notice to him requiring him to do so, to show to the reasonable satisfaction of CE that he is able to carry out and fulfil the Contract and if required by the CE to give security therefore or if the Contractor (whether an Individual Firm or Incorporated Company) shall suffer execution to be issued or if the Contractor shall suffer any payment under this Contract to be attached by or on behalf of any of the creditors of the Contractors or if the contractor shall assign or sublet the Contract without the consent in writing of the CE first obtained or if the Contractor shall charge or encumber this Contract or any payment due or which may become due to the Contractor there under, or if the CE shall certify in writing that in his opinion the Contractor,

a) has abandoned the Contract, or

CONTRACTOR

EMPLOYER

- b) has failed to commence the work, or has without any lawful excuse under these conditions suspended the progress of the work for 7 (seven) days after receiving from the CE written notice to proceed, or
- c) has failed to proceed with work with such due diligence and failed to make such due progress as would enable the work to be completed within the time agreed upon, or
- d) has failed to complete the work within the stipulated date including authorised extensions or
- e) has failed to remove the materials from the site or to pull down and replace the work within 7 (seven) days after receiving a written notice from the Corporation's Engineer that the said materials or work were condemned or rejected or
- f) has neglected or failed persistently to observe and perform all or any of the acts, matters, or things, by this Contract to be observed and performed by the Contractor for 7 (seven) days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or
- g) Has to the detriment of good workmanship or in defiance of the CE's instructions to the contrary sub-let any part of the Contract?

then and in any of the said causes, the CE notwithstanding any previous waiver, after giving 7 (seven) days notice in writing to the Contractors, determine the Contract, but without thereby affecting the powers of the CE or the obligations and liabilities of the Contractor, the whole of which shall continue to be in force as fully as if the contract has not been so determined and as if the work subsequently executed had been executed by or on behalf of the Contractor. And further, the Employer, his agents or servants, may enter upon and take possession of the work and all plant, tools, scaffolding, sheds, machinery, steam and other power, utensils and materials, lying upon the premises or the adjoining lands or road and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the work or by employing any other Contractors or other person or persons to complete the work, and the Contractor shall not in any way interrupt or do any act, matter, or thing to prevent or hinder such other Contractor, other persons or person employed for completing and finishing or using the materials and plant for the work. When the work shall be completed or as soon thereafter as convenient, the CE shall give a notice in writing to the Contractor to remove his surplus materials and plant and should the Contractor fail to do so within a period of 14 (Fourteen) days after receipt thereof by him, the Employer may sell the same by public auction and shall give credit to the Contractor for the amount so realised. The CE shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to or by the Employer for the value of the said plant and materials so taken possession of by the Employer and the expense or loss which the Employer shall have been put to in getting the work to be so completed, and the amount, if any, owing to the Contractor and the amount, which shall be so certified shall thereupon be paid by the Employer to the Contractor or by the Contractor to the Employer, as the case may be and the Certificate of the CE shall be final and conclusive between the parties.

32. TERMINATION OF CONTRACT BY CONTRACTOR:

CONTRACTOR

EMPLOYER

32.1 If payment of the amount payable by the Employer under any Certificate of the EE shall be in arrears as unpaid for 60 (sixty) days after notice in writing requiring payment of the amount with interest of aforesaid shall have been given by the Contractor to the Employer, or if the work be stopped for six months under order of the CE or by any injunction or other order of any Court of Law, then and in any of the said cases, the Contractor shall be at liberty to determine the Contract by notice in writing to the Employer and he shall be entitled to recover from the Employer payment for all the work executed and for any loss, he may sustain upon any plant or material supplied or purchased or prepared for the purpose of the Contract.

32.2 In arriving at the amount of such payment, the net rates contained in the Contractor's original tender shall be followed or where the same may not apply, valuation shall be made in accordance with Clause No.15 hereof.

33. DETERMINATION OF CONTRACT DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK:

33.1 If at any time after the acceptance of the tender, the Employer shall for any reasons whatsoever not require the whole or any part of the works to be carried out, the CE shall give notice in writing to the Contractor who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the Execution of the whole of the works.

The Contractor shall be paid at contract rates for the full amount of work executed and in addition:

a) The cost at site of all surplus approved materials collected for incorporation in the work, which the Contractor does not wish to retain and which shall thereafter become the property of the Employer.

b) Where the Contractor desires to retain the surplus of approved materials (excepting materials supplied by the Employer or obtained in Employer's name, which shall, in any case, be returned to the Employer) the cost of handling and cartage charges for removal from the site to a reasonable distance not exceeding 25 kms.

c) If upon the determination of the Contract under this condition, the Contractor is of the opinion that he has suffered hardship by reason of the operation of these conditions, he may refer the circumstances with full details to the Chief Engineer, who on being satisfied that such hardship exists or has existed, shall make such allowance, if any as in his opinion is reasonable, and his decision shall be final, conclusive and binding.

34. DISPUTES TO BE FINALLY DETERMINED BY CHIEF ENGINEER:

34.1 The Instruction, Decision, Opinion, Direction, Certificate or Valuation of the CE with respect to all or any of the matters under Clause (2), (3), (5), (6), (9), (14), (15), (18), (23), (27), (30), (31) and (33) hereof (which matters are herein referred to as EXCEPTED MATTERS) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other Decision, Opinion, Direction, Certificate or Valuation of the

CONTRACTOR

EMPLOYER

CE or any refusal of the CE to give any of the same shall be subject to the right of Arbitration and review as given under Clause No.36.

35. SECURITY DEPOSIT AND PERFORMANCE GUARANTEE:

35.1 Amount towards Security deposit shall be calculated as per details given under Serial No.9 of “APPENDIX TO CONDITIONS OF CONTRACT” in Part-II of the tender. Security Deposit can be either in Cash or in the form of Bank Guarantee.

In case of cash option, the EMD shall be retained as part of Security Deposit and balance Security Deposit shall be accumulated through deductions from Running Account Bills at 7.5% (maximum) of gross amount of bill. In case of Bank Guarantee option, the Contractor shall furnish one Bank Guarantee for full amount of Security deposit valid till end of defects liability period OR, two Bank Guarantees of like amounts each equal to half the Security deposit; one valid till virtual completion and the other till end of defects liability period.

35.2 Performance Guarantee under 9(b) of “Appendix to Conditions of Contract” shall be only in the form of Bank Guarantee valid up to scheduled date of completion.

35.3 The Bank Guarantee/s shall be from any Nationalised / Scheduled Bank approved by the Chief Engineer, which is located at the Zonal Office Headquarters of L.I.C within whose jurisdiction the work falls or at the place of work.

35.4 Bank Guarantee/s (BGs) against Security Deposit (SD) and Performance Guarantee (PG) shall be executed as per the specimen pro-forma at Annexure B and C. These guarantee/s shall be submitted within 20 (twenty) days of issuance of letter of acceptance.

35.5 In case of failure by the contractor to furnish the Bank Guarantee against Performance Guarantee as per Cl.35.2 by the stipulated date or extended date if any, Employer shall without prejudice to any other right or remedy available in law, be at liberty to cancel the tender and forfeit the Earnest Money absolutely.

35.6 50% of the Security Deposit (cash option) shall be refunded after the certificate of virtual completion is issued to the contractor & provided that the employer has no claim for forfeiture of part or whole of the said deposit.

35.7 Balance 50% of Security deposit will be refunded to the contractor after the satisfactory completion of the defects liability period, subject to deductions for any appropriations thereof required to be made by the employer as per the conditions of contract.

35.8 If one Bank Guarantee in lieu of total Security Deposit is furnished, the same will be released only after the successful completion of Defects Liability period subject to any appropriations as aforesaid.

CONTRACTOR

EMPLOYER

35.9 If two Bank Guarantees in lieu of Security deposit are furnished, the First Bank Guarantee will be released after the certificate of Virtual completion is issued to the contractor and second shall be released after the satisfactory completion of Defects Liability Period subject to any appropriations as aforesaid.

35.10 Bank Guarantees towards Performance Guarantees (where applicable) shall be released after the virtual completion is issued.

35.11 Contractor shall keep the Security Deposit and Performance Guarantee, where applicable, replenished to its full value whenever any recovery or appropriation there from occurs. The employer reserves the right to do so from any money(s) due to the contractor lying with them.

35.12 The Contractor should note that no interest will be allowed on any part of the Security deposit.

35.13 No deductions will be effected from the bills when the total security deposit is paid in the form of Bank Guarantee(s) and the E.M.D shall be refunded after acceptance of Bank Guarantee(s).

35.14 In the event of failure by the contractor to submit Bank Guarantee(s) by the specified / extended date, recovery of Security deposit shall be effected from the R.A Bills. However, where the contractor fails to furnish Bank Guarantee against Performance Guarantee the matter shall be dealt with as per Cl. 35.5 above.

35.15 In all cases of Bank Guarantees, there shall be further provision of claim period of 6 months. If the contract period gets extended for any reason whatsoever, the contractor shall obtain the required extensions to the Bank Guarantee(s).

36. SETTLEMENT OF DISPUTES, ARBITRATION:

36.1 All disputes and differences of any kind whatsoever arising out of or in connection with the Contract or the carrying out of the work (whether during the progress of the work or after its completion and whether before or after determination, abandonment or breach of the Contract) shall be referred by the Contractor to the Chief Engineer within 15 (fifteen) days of any such matter arising. The CE shall upon receipt of such reference convey his written instructions or decision within 30 (Thirty) days to the contractor. If the contractor be dissatisfied with the decision of the CE on any matter, other than EXCEPTED MATTERS, then and in any such case, the Contractor shall within 30 (Thirty) days after receiving notice of such decision give a written notice to the Employer requiring that such matters in dispute (other than excepted matters) be arbitrated upon. Such written notice shall specify the matters which are in dispute or difference of which such written notice has been given and no other shall be and is hereby to be referred to the Arbitration. In case the Contractor fails to serve the written notice on any or all the issues in dispute within 30 (Thirty) days the decision conveyed by the CE shall be taken as final, binding and conclusive and shall not be open to arbitration.

CONTRACTOR

EMPLOYER

36.2 Any disputes or differences that the employer may have with the contractor shall also be referred to Arbitration.

36.3 All disputes between the parties to the contract (other than those for which the decision of the CE or any other person is by the contract expressed to be final & binding) shall after written notice by either party to the contract to the other of them be referred to sole arbitration by an Arbitrator to be appointed by the Executive Director (Engineering).

36.4 The sole Arbitrator shall be a qualified and experienced professional Engineer/Architect who is holding or held office in Central / State Govt. or public undertaking (of the rank Dy. Chief Engineer / Senior Surveyor of works / Dy. Chief Architect and above), OR a member of Indian Council of Arbitration.

36.5 If the arbitrator so appointed resigns his appointment or vacates his office or is unable or unwilling to act due to any reason whatsoever, the appointing authority shall appoint a new arbitrator in his place.

36.6 Unless both the parties agree in writing, reference of such disputes to arbitration shall not take place until after the completion or alleged completion of the work or termination or determination of contract.

36.7 The Sole Arbitrator shall determine all matters in disputes other than EXCEPTED MATTERS (referred in Cl.No.34) which shall be referred to the Sole Arbitrator.

36.8 The Arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act 1996 or any statutory modifications thereof.

36.9 The Contractor hereby also agrees that Arbitration under this Clause shall be a condition precedent to any right of action under the Contract.

37. LUMP SUM ADVANCE (APPLICABLE TO CONTRACT COSTING Rs.25 LAKHS AND ABOVE)

37.1 Loan will be available if required by the Contractor, and may be given as under on submission of application by him subject to other conditions being fulfilled.

37.2 A lump sum amount not exceeding 5% of the Contract sum may be advanced against a Bank Guarantee and at the interest rate as specified in Appendix to the Conditions of Contract, repayable half-yearly-compounded. The advance shall be utilised by the Contractor for the purpose of this Contract only and for no other purpose.

37.3 The Bank Guarantee (Proforma at Annexure 'C') shall be for the equivalent amount of loan 'plus' simple interest at specified rate plus 1% of loan amount to cover costs. The Bank Guarantee shall be from any

CONTRACTOR

EMPLOYER

Nationalised or approved scheduled Bank preferably located at Zonal Head Quarters of LIC or place of work and shall be valid till the date of completion as specified in Appendix to Conditions of Contract.

37.4 The amount of loan which may be given to the Contractor shall be at the sole discretion of the CE and may be in one or more instalments.

37.5 Recovery of the sums advanced by way of loan as above and of interest, thereon shall be made by deduction from the Contractor's running account bills in suitable percentages in relation to the progress of work as fixed by the CE subject to the condition that entire amount of loan with interest thereon shall be fully recovered by the time the work amounting to 75% of the Contract sum is completed or completion period whichever is earlier. Provided that if at any time the Contractor fails to execute the Contract to the satisfaction of the Employer for any reason whatsoever, the Employer shall be entitled to recall forthwith the entire amount so advanced with interest, cost and legal expenses, etc. and/or recover the whole/balance amount as the case may be, from the bill if any, payable to the Contractor or by enforcing the Bank Guarantee.

37.6 Whenever extension of time is granted to the Contractors for the completion of the project and where the loan is not fully recovered, Contractor shall furnish fresh Bank Guarantee for extended period of Contract for the outstanding loan amount together with specified simple interest for the remaining period and 1% of outstanding loan amount towards costs.

37.7 Whenever the full amount of loan plus interest has been fully recovered, the Bank Guarantee shall be released.

37.8 If the situation so warrants a second loan will be available if required by the contractor subject to the following conditions :

- a) At least 50% of the first loan stands recovered
- b) The amount of the loan shall not exceed 5% of the balance amount of work.
- c) The sum of amount outstanding plus amount of second loan shall not exceed 5% of the total value of work

37.9 All other conditions applicable to lump-sum advance shall apply for the Second loan also.

APPENDIX TO THE CONDITIONS OF CONTRACT**TENDER FOR SITC OF WET RISER IN HINDUSTHAN BUILDING & H.B(ANNEX) AT 4 C R AVENUE.****KOLKATA.****ESTIMATED COST : Rs.48,00,000 (Rupees Forty eight lakhs)****PERIOD FOR COMPLETION : 4 Months.****EARNEST MONEY DEPOSIT :Rs.72,000/- (Seventy two thousand Only)**

Clause No.	Description	
13	Date of Commencement	21 (Twenty One) days from the date when the contract is awarded / the acceptance Letter is issued to the contractor OR the contractor receives the possession of the site whichever is later.
	Time of completion	4 months from the date of commencement.
27.	Defects Liability Period	12 (Twelve) Months.
19.	Liquidated damages for delay	1% of the accepted tender amount per week of delay subject to a maximum of 10% of the accepted tender amount.
22.	Period of honoring interim certificate.	20 Days.
21.	Period of Final Measurement	60 days
22.	Period of honoring Final certificate	90 Days.
35	Security	10% of the accepted Tender Amount (Rounded off to next Hundred Rupees) which can be either in Cash option or in the form of Bank Guarantee (BG)
35.	Recovery of Security Deposit	In case of cash option, EMD shall be retained as part of Security Deposit and balance of Security Deposit shall be recovered from R.A. Bills at 10% of Gross amount of bill. (If Security Deposit is paid in the form of Bank Guarantee, no recovery from R.A.Bills shall be made and EMD shall be refunded after acceptance of Bank Guarantee).
22	Minimum of value of work for interim certificate	Rs.12,00,000/-(Rupees twelve lakhs)
Special	Recovery of charges against Electricity	0.5% on the gross value of the Work Done

CONTRACTOR

EMPLOYER

conditions clause 8	from Contractors Bill(s)	
17.5	Contractor's All Risk Policy inclusive of Third Party Liability.	a) 7.5 % of Contract Value of Rupees upto Rs 2.00 Crore. b) 5 % of Contract Value of Rupees up to Rs 10 Crore. c) 2.5 % of Contract Value of Rupees above Rs 10 Crore.
17.5	Workmen's Compensation Policy	As per mutual agreement.

LIFE INSURANCE CORPORATION OF INDIA
GENERAL INSTRUCTIONS TO CONTRACTORS

1. DRAWINGS:

1.1 The contractor upon commencement of work shall submit Drawings and the same shall be kept open for inspection at places as mentioned in the letter to the contractor from the CHIEF ENGINEER . Drawings generally include the site plan, floor plans, elevations and sections of the proposed work. The contractor shall prepare detailed working drawings and get them approved by CHIEF ENGINEER

2. INSPECTION OF SITE:

2.1 The Tenderer shall visit and examine the site of work and satisfy himself as to the nature of the existing roads or other means of communication, the character of the soil and of the excavations, the correct dimensions of the work and facilities for obtaining materials and shall obtain generally his own information on all matters affecting the execution of the work. No extra charge made, in consequence of any misunderstanding or incorrect information on any of these points or on the grounds of insufficient description will be allowed. All expenses incurred by the Tenderer in connection with obtaining information for submitting this tender including his visits to site and efforts in compiling the Tender shall be borne by the Tenderer and no claims for reimbursement thereof shall be entertained.

3. WHOLE WORK TO BE COMPLETED IN THE SPECIFIED COMPLETION PERIOD:

3.1 The whole work is to be completed within the completion period stated in the Appendix to Conditions of Contract or the extended date of completion, if any. The Contractor will be required if necessary, to work overtime to complete the work by the stipulated date. No extra will be allowed on the Contract sum for such overtime work.

4. TIME AND PROGRESS CHART:

4.1 A time and Progress Chart is attached to this Contract for guidance. The Contractor shall submit his version of time and progress chart fitted within the specified overall period of completion (as stated in Appendix to Conditions of Contract) within 21 (Twenty One) days of the communication of acceptance of the tender, to the Corporation's Engineer.

4.2 Ancillary work should be so started that all such work is completed before the specified overall contractual period of completion.

4.3 The Contractor shall assume full responsibility for any delay in delivery of materials by Merchants or nominated Sub-Contractors not having completed the work in accordance with the Time and Progress Chart. Such excuses shall not form any criterion for extension of time, or any claims by the Contractor.

5. DRAWINGS ON SITE:

5.1 The Drawings maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved transparent varnish or laminated at the cost of the Contractor. They are to be protected from the ravages of termites, ants, silver fish and other insects.

CONTRACTOR

EMPLOYER

6. ORDER OF WORK:

6.1 The Chief Engineer reserves the right to fix the order in which the various items of work involved in this Contract is to be executed and Contractor shall comply with the same. There shall be no extra claims on account of this.

7. WORKMANSHIP:

7.1 The Work calls for a high standard of workmanship combined with speed.

8. REJECTED WORKMANSHIP OR MATERIALS:

8.1 Any workmanship, or materials not complying with the specific requirements or approved samples, or which have been damaged, contaminated or deteriorated, must be removed immediately from the site and replaced at the Contractor's expense as directed.

9. QUOTED RATES:

9.1 Contractor should note that unless otherwise stated the tender is strictly on Item Rate basis and his attention is drawn to the fact that rates for each and every item should be correct, workable and, self supporting.

10. WATCHING AND LIGHTING:

10.1 The Contractor from the time of being placed in possession of the site must allow for watching, lighting and protecting the work, the site and surrounding, properly by day and night on all days including Sundays or other holidays, at his own cost.

11. SECURITY AND PROTECTION:

11.1 The Contractor shall at his cost, provide any necessary temporary enclosures, gates, entrances, etc. for the protection of the work and materials and for altering and adapting same as may be required and removing at completion of the works and making good all works disturbed.

11.2 Should the work be suspended by reason of rain, strike, lock-outs or any other cause, the Contractor shall at his cost take all precautions necessary for the protection of the work and shall make good any damage arising from any of these causes.

11.3 The Contractor shall at his expense cover-up and protect from injury from any cause, all new work and supply all temporary doors protection to windows, and any other requisite protection for the whole work executed, whether by himself or special tradesmen of Sub-Contractors and any damage caused must be made good by the Contractor at his own expense.

11.4 The Contractor shall, at his expense, protect all projecting sills, jambs, copings, stone or concrete treads and moldings and all concrete steps, wood work and joinery and the like from injury during the progress of the work.

CONTRACTOR

EMPLOYER

12. MINIMUM WAGES ACT:

12.1 The Contractor shall pay rates of wages and observe hours of work and conditions of employment to existing rules under Minimum Wages Act. Further, it shall be Contractor's responsibility to ensure that he pays his workmen wages, which are not lower than the minimum prescribed by the Union Government and State Government in which area this Contract, is being operated.

13. SHEDS FOR MATERIALS:

13.1 The Contractor shall at his cost provide and maintain proper approved sheds for the storage and protection of materials etc. and other work that may be executed on the site including the tools and materials of Sub-Contractors and remove on completion. Sheds for storage of Cement are to have floors raised from the ground.

14. WORKS AND SITE TO BE KEPT AND DELIVERED UP CLEAN:

14.1 All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of the work and at completion, including that of Sub-Contractor and special tradesman to be cleared and carted away. All rejected materials shall be removed. Contractor's quoted rates shall allow for these factors.

15. SIGN BOARD AND HOARDINGS:

15.1 The Contractor shall not affix or place any placards or advertisement of any description or permit the same to be affixed or placed in or upon any hoarding, gantry, buildings or structure other than that approved by the Chief Engineer.

16. SCIENTIFIC AND MEASURING INSTRUMENTS:

16.1 All necessary instruments for installation and checking as required, shall be provided by the Contractor at his expense for the due performance of this Contract as instructed by the Corporation's Engineer.

17. ATTENDANCE ON SUB-CONTRACTORS:

Co-ordination: The Contractor shall be responsible for the co-ordination of all the work including that of Sub-Contractors, for arranging runs of all services and working to the requirements and layout of the specialist trades, in all matters necessary for the complete execution of the work.

Rates quoted by the Contractor shall be inclusive of all attendance on Sub-Contractors or other Contractors nominated by the Employer. Contractor must allow for provision of the use of his scaffolding to Sub-Contractors and for its retention until such time all relevant Sub-Contract works are completed.

The Contractor shall accept liability for and bear the cost of the supply of all necessary water, electricity, lighting, watching etc. for the Sub-Contractors work.

CONTRACTOR

EMPLOYER

The Contractor must allow in his rates for making good any holes and chases left by the Sub-Contractors or other Contractors nominated by the Employer before the Builder's Work is completed and handed over.

The Contractors shall, at all times, give access to workmen employed by the local or other authorities or any men directly employed on the buildings and to provide such parties with proper, sufficient, and if required, special scaffolding, hoists and ladders and provide them with water and lighting, and leave or make any holes, grooves etc. in any work directed by the Chief Engineer/Ex.Engineer, as may be required, to enable such workmen to lay or fix pipes, electric wiring, special fittings etc. Contractor's quoted rates shall allow for these factors.

18. OCCUPATION BY EMPLOYER:

18.1 The Employer reserves the right to take possession of the lifts in sequence as completed, as may be considered by the Chief Engineer/Executive Engineer both practicable and reasonable and without hindrance to the Contractor's progress.

19. TAXES, DUTIES, LEVIES AND DEDUCTION AT SOURCE:

19.1 The Contractors shall be responsible to pay all statutory levies imposed by the State and Central Government such as Income Tax/ Sales Tax/ Sales Tax on works contract, Value Added Tax (VAT), Service Tax, Excise Duty, Octroi etc. and the rates quoted in the tender shall allow for the same. No reimbursement, whatsoever, shall be made to the contractors on account of any taxes or duties or increase in the taxes/duties by act of any legislation.

19.2 Deduction at source of Income/Sales Tax on works contract etc. shall be made by LIC of India as per the provisions prevailing from time to time from the Running Account or Final Bills and remitted to the concerned Taxation Authorities/State Government on behalf of the contractor.

SERVICE TAX :

The service tax is reimbursed as per the prevailing laws. The prices quoted by the agencies are exclusive of service tax. However the permissible service tax will be reimbursed to the contractor as per the service tax rules on submission of documentary proof.

SPECIAL CONDITIONS OF CONTRACT**FOR SUPPLY, ERECTION, TESTING & COMMISSIONING OF WET RISER IN HINDUSTHAN BUILDING & H.B(ANNEX), 4 C.R AVENUE, KOLKATA – 700 0072****1. VISIT OF SITE OF WORK :**

The tenderer shall visit the site of work before filling in his tender and get acquainted with all the information required before submitting the tender.

The dimensions given on the drawings, if any, supplied along with the tender should be considered as only indicative and it is obligatory on the part of the tenderer to satisfy them- selves regarding actual dimensions of the shaft available on the site. Depending on the actual dimensions of the lift shaft at site the contractor shall include in his quotations for any additional structural steel work (like brackets to support guide rails, etc.) that may be necessary to erect and install the lift in its final position within the available shaft. No extra claims on account of any such extra work will be entertained at a later date.

2. PRICES :

The price quoted shall be firm until completion of the work and not subject to any variations. The tender prices shall include for all packing and unpacking, all loading and unloading, all freight, custom duty, octroi duty, etc. insurance for the equipment during the storage as well as during the erection and for all damages from any cause whatsoever during the contract and defects liability period. The charges shall also include for delivery of the equipment at the site of work. No claim for extra or otherwise on account of the foregoing shall be entertained as the rates quoted shall be deemed to be inclusive of all the charges applicable.

3. TAXES & DUTIES, ETC.:

Tenders are invited on the basis of works contract. The contractors shall be responsible to pay the Sales Tax/ Trade Tax / Commercial Tax on works contract, service tax and such other duties and taxes as Turn Over Tax, Sales Tax on materials, Excise Duty, Octroi and all other duties and taxes levied by the States / Central Government / Local Bodies and rates quoted in the tender shall allow for the same.

Deduction of Trade / Commercial / Sales Tax on works contract at source shall be made by LIC of India as per the provisions prevailing from time to time from the running account or final bills and remitted to the concerned taxation authorities / State Government on behalf of the contractor under whose jurisdiction of work is executed. This is applicable only if the State Government directs the employer to deduct the Works Contract Tax at source.

4. OVERRIDING AND PRINTED CONDITIONS :

Overriding conditions, if any, imposed by the tenderer, having financial implications or otherwise are to be submitted with the technical bid.

5. CIVIL WORK :

CONTRACTOR

EMPLOYER

The tenderers shall include in their tender cost of all the civil engineering work such as Scaffolding for erection and also for cutting of holes in walls, floors, ceiling, etc. and making good the same to match the existing surface of the walls, floors and ceiling. No holes shall be made in structural members without the written permission from LIC of India.

6. MINIMUM WAGES PAYABLE TO LABOUR :

The contractor shall have no claim whatsoever if on account of any local regulations or otherwise he is required to pay wages in excess of the wages taken into consideration by him at the time of filling of the tender.

7 STORAGE AND LIVING ACCOMMODATION :

The employer may try to provide space for storage of equipment at site. In case he is unable to make the same available, the Tenderer will have to make their own arrangements for storage of the equipment in the vicinity of the site of erection of the equipment. Necessary locking arrangement will have to be made by the successful tenderer at his cost. Safety of all the materials stored will be entirely of the tenderer.

The employer does not undertake to provide any living accommodation required by the tenderer for their erectors during the erection and commissioning of the equipment.

8 ELECTRIC SUPPLY :

a) Supply required during erection & testing : Electric supply is available at site. However, safety precautions as per IE rules and IE acts are to be followed while using electric supply. Energy charges at the rate of 0.5% will be deducted from your bills.

9 DRAWINGS :

The drawings of the general layout of the equipment shall be submitted by the successful tenderer within 21 days on receipt of acceptance letter by him for approval of the employer. 2 copies of the finalised layout drawings together with 2 copies of the detailed diagram will have to be supplied by the contractor to the employer after erection of the equipment. Further a copy of the detailed diagram shall be framed and installed by the contractor.

It is pointed out that any delay in completion due to delay in submission of layout drawings will render the contractor liable for liquidated damages as per relevant clause of the conditions of contract.

10 TRAINING TO THE STAFF AND OPERATION INSTRUCTIONS :

The contractor shall train the person nominated by the employer during the erection of the equipment at site free of cost to the employer regarding operation and maintenance of the various equipments being erected. The person shall be supplied with a set of necessary literature, operating instructions, diagram, etc. so that at a later date he is able to attend to the minor faults and also maintain the equipment. 2 copies of operating instructions, diagram, etc. bound in a book form shall be supplied to the employer after erection of the equipment.

CONTRACTOR

EMPLOYER

11 DAMAGES TO THE EXISTING WORK :

Any damage to the existing structure whether building or any other during the execution of the work shall be made well by the contractor at his cost and the site left clean and tidy on completion of the work. Rectification and reinstatement, making good, etc. shall conform to the standard of materials originally used in the work and finished work shall match with the existing work in all respects to the entire satisfaction of the employer. In case of any dispute on this count, decision of the Chief Engineer shall be final conclusive and binding.

12. SCAFFOLDING :

The tenderer shall to make own arrangements for provision of necessary scaffolding for the erection.

13. PAINTING, FINISHING TO IRON, STEEL & WOODEN WORK :

All exposed steel work carried out under this contract shall be properly painted with two coats of anti-rust paint and all the wooden surfaces shall be given necessary preservation, internally and varnish externally to obtain smooth and glossy surface to the satisfaction of the employer.

14. DAMAGE / ACCIDENTS DURING ERECTION :

The contractor shall be responsible for damages that are caused during the progress of work. In every case in which by virtue the provision of section 12, subsection 1 of the Workmen's Compensation Act, 1923, the Life Insurance Corporation of India is obliged to pay compensation to the workmen employed by the contractor in execution of the work, the employer shall recover the same from the contractor without prejudice to the rights of the employer under section 12, sub-section (2) of the said Act and the employer shall be at liberty to recover such amount or any part thereof by deducting it from any sum due by the employer to the contractor, whether under this contract or otherwise.

15. Comprehensive Annual Maintenance contract: The Tenderers are advised to quote CAMC rate in the Tender / Price Bid.

LIFE INSURANCE CORPORATION OF INDIA

PROFORMA FOR

ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT made at.....this.....day of20..... between THE LIFE INSURANCE CORPORATION OF INDIA, a body corporate constituted and established by the Life Insurance Corporation Act, 1956 (Act 31 of 1956) and having its Central Office at "Yogakshema", Jeevan Bima Marg, Mumbai and its Zonal Office at hereinafter called the Employer (which expression shall include its successors and assignees wherever context or meaning shall so require or permit) of the one part and M/s(hereinafter called "**The Contractor**") of the other part.

WHEREAS the Employer is desirous of constructing the..... and has prepared drawings and specifications and the Schedule of Quantities which have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractor has agreed to execute upon and subject to the conditions and instructions set forth herein (hereinafter referred to as "**the said Conditions**") the works shown upon the said drawings and /or described in the said Specifications and included in the said Abstract Schedule of Quantities at the item rates therein set forth amounting to the contract sum of Rs..... hereinafter referred to as "**the said contract Amount**".

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the said Contract Amount to be paid at the times and in the manner set forth in the said conditions, the contractor shall upon and subject to the said Conditions execute and complete the works shown upon the said Drawings and described in the Specifications and/or the priced Schedule of Quantities.
2. The Employer shall pay the contractor the said Contract Amount or such other sum as shall become payable for the items and in the manner hereinafter specified in the said conditions.
3. The said Conditions and Appendices thereto shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by and submit themselves to the conditions and perform the Agreement in their part respectively in such conditions contained.
4. All disputes arising out of or in any way concerned with this Agreement shall be deemed to have arisen in _____ and only the Courts in _____ shall have jurisdiction to determine the same.
5. The contract comprises :-
 - i) Tender Documents Serial Pages.....
 - ii) Subsequent Correspondence Serial Pages.....
 - iii) Architectural Drawings Serial Pages

CONTRACTOR

EMPLOYER

6. Only () alterations have been made in these documents and as evidence that these alterations were made before the execution of Contract Agreement, they have been initialed by the contractor and.....

.....Engineer, Zone, Life Insurance Corporation of India The said officer is hereby authorised to sign and initial on the Employer's behalf, the documents forming part of this contract.

7. IN WITNESS WHEREOF THE Official Seal of the LIFE INSURANCE CORPORATION OF INDIA, ZONE, was thereto affixed and signed on its behalf by the Chief Engineer and by on behalf of the Contractor/s on the dates respectively mentioned against their signatures in the presence of the witnesses whose signatures are also appended.

In the presence of

1. Signature :
 Name :
 Address :

 CHIEF ENGINEER/EX. ENGINEER
 FOR AND ON BEHALF OF THE
 LIFE INSURANCE CORPORATION
 OF INDIA

Date :

2. Signature :
 Name :
 Address :

In the presence of

1. Signature :
 Name :
 Address :

 FOR AND ON BEHALF
 OF THE CONTRACTOR
 M/S.....
 Date :

2. Signature :

Name :
 Address :

CONTRACTOR

EMPLOYER

ANNEXURE – 'B'**LIFE INSURANCE CORPORATION OF INDIA**

(Refer Clause No. 35 of Conditions of Contract)

FORM OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT
IN INDIVIDUAL CONTRACTS

To

THE LIFE INSURANCE CORPORATION OF INDIA

In consideration of the Life Insurance Corporation of India having its _____ Zonal Office at _____ in the State of _____ (hereinafter called '**the Corporation**') which expression shall unless repugnant to the subject or context include its successors and assignees) having agreed under terms and conditions of contract (vide its acceptance letter No. _____ dated _____) made between _____ *

(hereinafter called the said Contractor) and the Corporation in connection with _____ (hereinafter called '**the said contract**') to accept a Deed of Guarantee and Indemnity as herein provided for Rs. _____ from the _____ ** in lieu of the Security Deposit to be made by the contractor and/or in lieu of the deduction to be made from the Contractor's bills, for the due fulfillment by the said contractor of the terms and conditions contained in the said contract, we the _____ (hereinafter referred to as '**the said Bank**') and having our office at _____ do hereby undertake and agree to indemnify and keep indemnified the Corporation from time to time to the extent of Rs. _____ (Rupees _____ only) against any loss or damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Corporation by reason of any breach or breaches by the said contractor in respect of the said contract or of any of the terms and conditions contained in the said contract, or in respect of all its claims for money and / or material found due and recoverable from the said contractor and to unconditionally pay the amount claimed as such by the Corporation on demand and without demur to the extent aforesaid.

2. We, the said Bank further agree that the Corporation shall be the sole judge of and as to whether the said contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Corporation from time to time on account thereof and the decision of the Corporation in this respect shall be final and binding on us.

CONTRACTOR

EMPLOYER

3. The Corporation shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or Indemnity from time to time to vary any of the terms and conditions of the said contract or to extend time of performance by the said contractor, or to postpone for any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said Contract or securities available to the Corporation and the said Bank shall not be released from its liability under these presents by any exercise by the Corporation of the liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance, act or omission on the part of the Corporation or any indulgence by the Corporation to the said contractor or of any other matter or thing whatsoever, which under the law relating to sureties would but for this provision have the effect of so releasing the Bank from its liability.

4. It shall not be necessary for the Corporation to proceed against the contractor before proceeding against the Bank and the Guarantee and Indemnity herein contained shall be enforceable against the said Bank, notwithstanding any security which the corporation may have obtained or obtain from the contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

5. Notwithstanding anything contained in any of the foregoing clauses the liability of the Bank under this Guarantee shall not exceed Rs. _____ (Rupees _____ only). The guarantee shall remain in force till _____. If any extension of time be granted to the contractor, we undertake to extend the guarantee with the consent of the contractor. Unless a claim or demand under this guarantee is made or presented to the Bank within six months from the expiry date, all the rights of the Corporation under this Guarantee shall cease and the Bank shall be released and discharged from all liability hereunder.

6. We, the said bank lastly undertake not to revoke this guarantee and indemnity during its currency except with the previous consent of the Corporation in writing and agree that any change in the constitution of the said contractor or the said Bank shall not discharge our liability hereunder.

For and on behalf of the Bank

(Name and Designation)

The above Guarantee is accepted by the
LIFE INSURANCE CORPORATION OF INDIA.

For and on behalf of the LIC of India

(Name and Designation)

Dated:

CONTRACTOR

EMPLOYER

Note No.1 * : FILL IN AS APPLICABLE**A) For Proprietary concerns:-**

Shri _____ son of _____ resident of _____
 _____ carrying on business under the name and style of _____
 _____ at _____ (hereinafter called '**the said contractor**' which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representative).

OR**B) For Partnership concerns:-**

1. Shri _____
 son of _____
 resident of _____

2. Shri _____
 son of _____
 resident of _____

carrying on business in partnership under the name and style of _____
 _____ of _____ at _____
 (hereinafter collectively called '**the contractor**' which expression shall unless the context requires otherwise include each of them and their respective heirs, executors, administrators and legal representatives)

OR**C) For companies :-**

M/S / Shri _____ a company under the Companies Act 1956 and having its
 registered office at _____ in the state of _____ (hereinafter called '**the said contractor**'
 which expression shall unless the context requires otherwise include its successors and assignees).

Note No.2:

**** Please fill in the name and address of Bank.**

CONTRACTOR

EMPLOYER

LIFE INSURANCE CORPORATION OF INDIA

(Refer Clause No. 35 of Conditions of Contract)

FORM OF BANK GUARANTEE FOR PERFORMANCE GUARANTEE
IN INDIVIDUAL CONTRACTS

To

THE LIFE INSURANCE CORPORATION OF INDIA

In consideration of the Life Insurance Corporation of India having its _____ Zonal Office at _____ in the State of _____ (hereinafter called '**the Corporation**') which expression shall unless repugnant to the subject or context include its successors and assignees) having agreed under terms and conditions of contract (vide its acceptance letter No. _____ dated _____) made between _____ *

(hereinafter called the said Contractor) and the Corporation in connection with _____ (hereinafter called '**the said contract**') to accept a Deed of Guarantee and Indemnity as herein provided for Rs. _____ from the _____ ** for the due fulfillment by the said contractor of the terms and conditions contained in the said contract, we the _____ (hereinafter referred to as '**the said Bank**') and having our office at _____ do hereby undertake and agree to indemnify and keep indemnified the Corporation from time to time to the extent of Rs. _____ (Rupees _____ only) against any loss or damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Corporation by reason of any breach or breaches by the said contractor in respect of the said contract or of any of the terms and conditions contained in the said contract, or in respect of all its claims for money and / or material found due and recoverable from the said contractor and to unconditionally pay the amount claimed as such by the Corporation on demand and without demur to the extent aforesaid.

2. We, the said Bank further agree that the Corporation shall be the sole judge of and as to whether the said contractor has committed any breach or breaches of any of the terms and conditions of the said contract and the extent of loss, damage, costs, charges and expenses caused to or suffered by or that may be caused to or suffered by the Corporation from time to time on account thereof and the decision of the Corporation in this respect shall be final and binding on us.

CONTRACTOR

EMPLOYER

3. The Corporation shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or Indemnity from time to time to vary any of the terms and conditions of the said contract or to extend time of performance by the said contractor, or to postpone for any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said Contract or securities available to the Corporation and the said Bank shall not be released from its liability under these presents by any exercise by the Corporation of the liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance, act or omission on the part of the Corporation or any indulgence by the Corporation to the said contractor or of any other matter or thing whatsoever, which under the law relating to sureties would but for this provision have the effect of so releasing the Bank from its liability.

4. It shall not be necessary for the Corporation to proceed against the contractor before proceeding against the Bank and the Guarantee and Indemnity herein contained shall be enforceable against the said Bank, notwithstanding any security which the corporation may have obtained or obtain from the contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

5. Notwithstanding anything contained in any of the foregoing clauses the liability of the Bank under this Guarantee shall not exceed Rs. _____ (Rupees _____ only). The guarantee shall remain in force till _____. If any extension of time be granted to the contractor, we undertake to extend the guarantee with the consent of the contractor. Unless a claim or demand under this guarantee is made or presented to the Bank within six months from the expiry date, all the rights of the Corporation under this Guarantee shall cease and the Bank shall be released and discharged from all liability hereunder.

6. We, the said bank lastly undertake not to revoke this guarantee and indemnity during its currency except with the previous consent of the Corporation in writing and agree that any change in the constitution of the said contractor or the said Bank shall not discharge our liability hereunder.

For and on behalf of the Bank

(Name and Designation)

The above Guarantee is accepted by the
LIFE INSURANCE CORPORATION OF INDIA.

For and on behalf of the LIC of India

(Name and Designation)

Dated:

CONTRACTOR

EMPLOYER

Note No.1 * : FILL IN AS APPLICABLE**A) For Proprietary concerns:-**

Shri _____ son of _____ resident of _____
 _____ carrying on business under the name and style of _____
 _____ at _____ (hereinafter called '**the said contractor**' which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representative).

OR**B) For Partnership concerns:-**

1. Shri _____
 son of _____
 resident of _____

2. Shri _____
 son of _____
 resident of _____

_____ carrying on business in partnership under the name and style of _____
 _____ of _____ at _____
 (hereinafter collectively called '**the contractor**' which expression shall unless the context requires otherwise include each of them and their respective heirs, executors, administrators and legal representatives)

OR**C) For companies :-**

M/S / Shri _____ a company under the Companies Act 1956 and having its
 registered office at _____ in the state of _____ (hereinafter called '**the said contractor**'
 which expression shall unless the context requires otherwise include its successors and assignees).

Note No.2:

**** Please fill in the name and address of Bank.**

CONTRACTOR

EMPLOYER

LIFE INSURANCE CORPORATION OF INDIA

(Refer clause 37 of Conditions of Contract)

FORM OF BANK GUARANTEE TO SECURE A LUMP SUM ADVANCE**To****THE LIFE INSURANCE CORPORATION OF INDIA**

In consideration of the Life Insurance Corporation of India having its _____ Zonal Office at _____ in the State of _____ (hereinafter called 'The Corporation' which expression shall unless repugnant to the subject or context include its successors and assignees) having agreed under the terms and conditions of contract vide its acceptance letter No. _____ dated _____ made between _____ (_____

hereinafter called the said Contractor and the Corporation in connection with _____ (hereinafter called the said 'contract'), to make at the request of the contractor a lump sum advance of Rs. _____ for utilizing it for the purpose of contract on his furnishing a guarantee acceptable to the Corporation, we the _____ ((_____ Bank (hereinafter referred to as 'the said Bank') a company under the companies Act, 1956 and having our registered office at _____ do hereby guarantee the due recovery by the Corporation of the said advance together with interest and costs thereon according to the terms and conditions of the said contract. If the said contractor fails to utilize the said advance for the purpose of the contract and/or the said advance together with interest thereon as aforesaid is not fully recovered by the Corporation, we the said Bank hereby unconditionally and irrevocably undertake to pay to the Corporation on demand and without demur to the extent of the sum of Rs. _____.

1. We, the said Bank further agree that the Corporation shall be the sole judge of and as to whether the said contractor has not utilized the said advance or any part thereof for the purpose of the said contract and the extent of loss or damage caused to or suffered by The Corporation on account of the said advance together with interest and costs thereon not being recovered in full and the decision of the Corporation in this respect, shall be final and binding on us.

2. The Corporation shall have the fullest liberty without affecting in anyway the liability of the Bank under this Guarantee or Indemnity, from time to time to vary any of the terms and conditions of the said contract or the advance or to extend time of performance by the said contractor or to postpone for any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or forbear from enforcing any of the terms and conditions governing the said contract or the advance or securities available to the Corporation and the said Bank shall not be released from its liability under these presents by any exercise by the Corporation of the liberty with reference to the matters aforesaid or by reason of time being given to the said contractor or any other forbearance, act or omission on the part of the Corporation or any indulgence by

CONTRACTOR**EMPLOYER**

the Corporation to the said contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the Bank from its such liability.

3. It shall not be necessary for the Corporation to proceed against the contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the Corporation may have obtained or obtain from the contractor shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.

4. Notwithstanding anything to the contrary hereinbefore contained the Bank's liability hereunder shall not exceed Rs. _____ (Rupees _____) in the aggregate. This Guarantee shall remain in force till the _____ day of the year 20...and the Bank's liability hereunder will cease to be operative unless any claim is lodged with the Bank within 6 (six) months thereafter.

5. We, the said Bank lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Corporation in writing and agree that any change in the constitution of the said contractor or the said Bank shall not discharge our liability hereunder.

For and on behalf of the Bank.

(Name and Designation)

The above Guarantee is accepted by the Life Insurance Corporation of India.

For and on behalf of the
LIFE INSURANCE CORPORATION OF INDIA

(Name and Designation)

CONTRACTOR

EMPLOYER

Note No.1 : FILL IN AS APPLICABLE**A) For Proprietary concerns:-**

Shri _____ son of _____ resident of _____ carrying on business under the name and style of _____ at _____ (hereinafter called 'the said contractor' which expression shall unless the context requires otherwise include his heirs, executors, administrators and legal representative).

OR

B) For Partnership concerns:-

1. Shri _____
son of _____
resident of _____

2. Shri _____
son of _____
resident of _____

carrying on business in partnership under the name and style of _____ of _____ at _____ (hereinafter collectively called 'the contractor' which expression shall unless the context requires otherwise include each of them and their respective heirs, executors, administrators and legal representatives)

OR

C) For companies:-

M/S / Shri _____ a company under the Companies Act 1956 and having its registered office at _____ in the state of _____ (hereinafter called 'the said contractor' which expression shall unless the context requires otherwise include its successors and assignees).

Note No.2 : Please fill in the name and address of Bank.

CONTRACTOR

EMPLOYER

LIFE INSURANCE CORPORATION OF INDIA

EASTERN ZONAL OFFICE : KOLKATA

TECHNICAL SPECIFICATIONS**1.0 SCOPE (GENERAL)**

The scope of work consists of the Equipment design, supply, inspection, transportation to site, installation, testing and commissioning of the wet riser system at H.B & H.B (annex) conforming to National Building Code .

For site supervision and work, the contractor shall employ qualified and experienced personnel. As the work is to be executed in an existing occupied building, the same shall be carried out with the minimum of interruption / disruption to normal working. The work may also have to be carried out during odd hours.

When the installation is complete the same shall be tested for various parameters as required, in the presence of corporation's engineer and the results shall be entered into the test certificate as per the requisite format applicable in the industry for such works.

All civil works connected with the above shall be carried out by the contractor including necessary repairs and making good the damages (if any) caused to the existing works and services during the course of execution of the above work. The contractor shall be responsible for the safe custody, handling etc. of all the materials brought to the site or supplied by LIC for erection till the same is installed, approved and finally handed over to LIC.

The work shall be carried out in accordance with the description of items as per the schedule of quantities, relevant drawings and specifications read in conjunction with the latest NBC rules applicable. The quoted rate shall be inclusive of:

- ◆ All necessary material, labour, tools and plant etc, transport, labour and incidentals required in planning, execution and completion of the work in full as called for.

CONTRACTOR

EMPLOYER

- ◆ Any wastage on material and labour.
- ◆ Liabilities, obligations and risks arising out of conditions of contract.
- ◆ In the event of conflict / discrepancy between the schedule of quantities and other documents including the specifications, the interpretations of the Accepting officer shall be final and binding.

All incidental expenditure for necessary liasoning work with the local authorities as required for the full and satisfactory completion of the work shall be deemed to be included in the quoted rate and nothing extra shall be payable on this account.

All the materials shall be of make/brand as given in the list of approved makes. Any materials not covered in the approved list shall be as approved by the Chief Engineer.

2.0 HYDRANT SYSTEM

2.1 Hydrant system consisting of Internal Hydrants Risers, internal Hydrant Ring, Hydrant Stations with all accessories such as Hydrants, Hoses, First Air Hose Reel, Branch Pipe.

2.2 On each floor with each riser there shall be Hydrant Station having one number of Hydrant, 2 nos. RRL Hose and a Branch pipe. The reinforced Rubber Lined Hose shall be of 15 meters length.

2.3 The Hydrant Station shall also be provided with a First Aid Hose Reel. Double braided rubber hose wound on a drum bracket with aluminum alloy bracket and piping. This set shall be connected to the Hydrant Riser through a Ball Valve.

2.4 Four way fire brigade inlet connection shall be provided at the underground fire water tank, hydrant system ring main.

2.5 The Terrace shall have an Air vessel with drain and pressure gauge to absorb pressure surges and water hammer effect when any of the main pump start.

2.6. The delivery header shall also have a fire brigade inlet connection (four way) outside the building. In case of any eventuality additional water if required, it may be pumped directly into the riser by the fire brigade.

2.7. All internal piping shall be Mild Steel Black Heavy Grade and shall have welded jointing

CONTRACTOR

EMPLOYER

for pipes above 50mm dia.

3.0 PUMPING SYSTEM

3.1 To cater for the Hydrant System, the following pumps are being provided:

S.NO	PUMP TYPE	DISCHARGE	HEAD	DRIVE
1	Main Hydrant Pump	2850 LPM	150	Electric
2	Standby Pump	2850 LPM	150	Diesel Engine
3	Jockey pump	180 LPM	150	Electric

3.2. There shall be a common Suction Header, which is connected to the Tank through Y Strainers. Each Pump shall have a Sluice Valve on the Suction side as well as Sluice Valve and Non Return Valve on the Delivery side. The Delivery of each pump shall be connected to the Common Delivery Header.

3.3. The Pumps shall start automatically through use of Pressure Switches. The start / stop sequence shall be as follows:

S.NO	PUMP	START	STOP
1	Jockey Pump	6.5 Kg/sq.cm	7.0 Kg/ sq.cm
2	Main Pump	5.0 Kg/ sq.cm	Manual
3	Standby Pump	4.0 Kg/sq.cm	Manual

3.4. The Main, Standby Pumps shall be single/multi stage split casing side suction type coupled to motor and run at 1450 RPM. The Diesel Engine driven pump shall run at 1450 RPM. The Engine shall be multi cylinder Heat Exchanger water - cooled type. All pumps shall have mechanical seal.

3.5. There shall be common Y-Strainers on the Suction manifold with stainless steel mesh to segregate the debris.

3.6. One Air Vessel shall be provided in the pump House for the Hydrant system. The Air Vessel shall be partly filled with water and shall provide for dampening effect to prevent water hammer when the pump starts. The air vessel shall be provided with pipe spool piece on which pressure switches shall be fitted. The Pressure Switches shall be connected to the starter on the pump starter panel.

3.7. The Hydrant system shall comprise of pipe ring main, an electric driven fire Hydrant of 2850 LPM at 150M head and a standby Diesel Pump Set of same capacity and head with all required

CONTRACTOR

EMPLOYER

accessories including valves, special fittings, instrumentation, control panels and any other components required to complete the system in all respects. In addition there shall be a jockey pump of 150 LPM at 80 M head.

3.8. The Hydrant system shall be semi-automatic in action that is the hydrant valves shall be operated manually. With the pressure going down in the pipe line the main hydrant pump shall start automatically. The hydrant piping shall be laid covering the entire area.

3.9. The Hydrant system shall be kept pressurized all the times. The Jockey Pump shall take care of the leakage in the system, pipelines and valve glands.

3.10. The pressure in the Hydrant pipe work shall be kept constant at 9.5 Kg/cm². In the event of fire, when any of the hydrant valves in the network is opened, the resultant fall in header pressure shall start the Fire Hydrant Pump through pressure switches automatically.

3.11. The scope of work for internal hydrant system covers providing, fixing and jointing MS pipe including testing, cutting and threading etc., with heavy class fittings like bends, tees, reducers as required, on walls, ceilings, beams, floors with suitable clamps, for installation of various sizes of pipes for Hydrant System and hydrant valve in hose cabinets as per NBC norms.

3.12. Flushing of Hydrant System:

After installation of complete system flushing of hydrant system shall be done as under:

3.12.1. Underground mains and lead-in connections to system risers shall be flushed before connections made to piping in order to remove foreign materials which may have entered underground during the course of installation. For hydrant system the flushing operation shall be continued until water is clear.

3.12.2 Underground mains and connections shall be flushed at a flow rate of not less than 1000 ltrs. per minute. The pump and other equipment necessary for the flushing shall be arranged by the contractor without any extra charges.

3.12.3. The water coming out from the outlet will be connected to storm water drain or any other receiver reservoir by means of suitable hose. Hose for the purpose shall be arranged by the contractor.

3.13. TESTING OF THE HYDRANT SYSTEM;

CONTRACTOR

EMPLOYER

3.13.1. After laying and jointing, the entire piping shall be tested to hydrostatic test pressure. The pipes shall be slowly charged with water so that the air is expelled from the pipes. The pipes shall be allowed to stand full of water for a period of not less than 24 hours and then tested under pressure. The test pressure shall be at least 1.5 times the operating pressure. The test pressure shall be applied by means of an electrical test pump to be provided by the contractor. Precautions shall be taken to ensure that the required test pressure is not exceeded.

3.13.2. The open end of the piping shall be temporarily closed for testing.

3.13.3. All leaks and defects in the pipes, joints, valves etc. noticed during the testing and before commissioning shall be rectified to the satisfaction of LIC.

3.13.4. There shall be a test valve, operation of which will simulate the operation of the landing valve / external hydrant. This will enable testing the healthiness of the equipment, availability and its control.

3.14. OPERATING SEQUENCE :

3.14.1 The Jockey pump shall automatically start, when set to auto-status, when the water pressure in the wet riser system falls to a pre-set value below the normal system pressure and shut down when the system pressure reaches the set value. Both the limits shall be adjustable on the appropriate controls in the pump room.

3.14.2 First the electric fire pumps will start by the sudden fall of pressure in the system due to operation of the pressure switch and feed the water to the system. If within the pre-set period the electric pump fails to start or fails to develop adequate pressure, the control system shall shut down the electric fire hydrant pump and initiate the start up of the standby diesel pump. The main electric fire hydrant pump shall then be locked out. An audio visual alarm shall also be given.

3.14.3. If within a preset period the standby pump also fails to start or fails to develop adequate pressure, the control system shall shut down the standby pump and lock it out and give an audio visual indication to that effect on the control panel.

3.14.4. Automatic Jockey pump shall be shut down automatically when the main electrical fire pumps or standby fire pump, start operating. Necessary integration of pipe work and control shall be provided for the purpose.

3.15 PIPING :

CONTRACTOR

EMPLOYER

3.15.1 GI pipes confirming to IS with ISI mark shall be used.

3.15.2 The pipes shall also conform to the requirements of the Outside pipe dia. as laid down in IS.

3.15.3 Hangers and supports shall be capable of carrying the sum total of all concurrently acting loads. They shall be designed to provide the required supporting effects and allow pipelines movements as necessary. All guides, anchors, braces, dampeners, expansion joints and structural steel to be attached to the building /structure, trenches etc. shall be provided by the Contractor. Hangers and components for all piping shall be approved by the Engineers. Anchoring fasteners shall be rated to take minimum 2 ton load and shall be as per approved make. Hangers shall be at 3.0 M intervals. Additional supports shall be provided at bends etc. Angles for pipe supports should not be less than 40x40x6mm size. Cutting shall be by gas cutter. All cut edges and weld surfaces shall be grounded to a smooth finish.

3.15.4 The piping system and components shall be capable of withstanding 150 per cent of the working pressure including water hammer effects and test pressure upto 15.0 Kg/cm²..

3.15.5 All pipes treated for anti corrosive treatment shall also be checked for line leakage by Holiday test. The test shall be carried out for the complete length and diameter of the pipe.

3.15.6 Pipe to pipe jointing by welding shall be carried out over-ground. A maximum of 4 lengths shall be jointed after which flanged connection with asbestos gaskets shall be used.

3.15.7 All pipe to pipe receiving edges shall be bevel finished to a clean edge by an electric grinder. A requisite gap determined by the thickness of the weld electrode shall be given between the joints before start of welding.

3.15.8 Joints shall be given a first weld in full width without burrs on the full dia of the pipe. Welding shall be carried out vertically from the surface to be welded. Weld fluxes shall not be so plastic such as to fall or drip down.

3.15.9 All pipe cutting shall be by oxy acetylene gas only. The cut surface shall be cleaned and ground by an electric grinder before further welding.

3.16 VALVES

CONTRACTOR

EMPLOYER

3.16.1 Valves in the building shall be Cast iron (IS 210), grade FG 260 butterfly valves conforming to PN 1.6, heavy duty cast iron disc with rubber lining ,anti corrosive nickel plating, nitrile seat and stainless steel 410 stem with lever/gear operation and powder coated finish for fire fighting application.

3.16.2 Non-return valves shall be cast iron of grade FG 260 swing check type. An arrow mark in the direction of flow shall be marked on the body of the valve. These valves shall conform to IS:5312. The flap shall be of cast iron and flap seat ring of leaded gun metal.

3.16.3 Valves below 50mm size shall have screwed ends while those of 50mm and higher sizes shall have flanged connections. Drain lines will have valves for draining.

3.16.4 Hydrant valve shall be as per IS: 5290 of Stainless Steel.

3.17 HOSE REEL :

3.17.1 The Hose reel shall be drum type with hub wheel ties. The supply pipe shall be of aluminium alloy and be a part of the suspension assembly. The drum shall rotate freely on the assembly. The drum shall be fabricated from GI sheet of minimum 18 gauge thickness. Length of Hose Reel shall be 36 metres.

3.17.2 The hose reel shall be directly tapped from the riser through 25mm dia pipe, the drum and the reel being firmly held against the wall by use of dash fasteners. The hose reel shall be swinging type (180 degree) and the entire Drum, Reel etc. shall be as per and IS:884 including marking. The rubber tubing shall be of IS:444 marked and double braided. The nozzle shall be 6mm dia. ABS plastic rotating head shut off type. A Ball valve shall be used to shut off the water supply to the Hose Reel.

3.18 HOSE CABINET

3.18.1 The cabinet shall be 16 gauge MS sheet with sides being folded back through machine. The Box shall have a single shutter with glass of 5mm thickness. The cabinet shall be supported suitable angle.

3.18.2 The cabinet shall be powder coated with red paint. The words "Yard Hydrant", "Hydrant" etc. shall be painted in white (or red on the glass) in 75 mm high letters. The hose box shall be lockable with socket spanner. All horizontal surfaces shall be sloped adequately with water discharge holes. Vents shall also be located on sides of the Hose Box.

3.19 AIR VESSEL

CONTRACTOR

EMPLOYER

3.19.1 The Air Vessels shall be provided to compensate for slight loss of pressure in the system and to provide an air cushion for counter acting pressure surges whenever the pumping set comes into operation. It shall be normally partly full of water, the remaining being filled with air which will be under compression when the system is in normal operation. Air vessel shall be fabricated from 8mm thick MS plate with dished ends and suitable supporting legs. It shall be provided with a 100 mm dia flanged connections from pump, one 50mm drain with valve, one water level gauge and 25mm sockets for pressure switches. The air vessel shall be hydraulically tested to 21.0 Kg/cm² pressure for 30 minutes. All valves shall be ball valves gun metal / bronze.

3.20 FOUR WAY BRIGADE INLET

3.20.1 Fire Brigade Inlet Connection shall be taken directly to the main. It shall comprise of four instantaneous male inlet coupling with plug and steel chain. The inlet shall have a dual plate wafer type non return valve and a butterfly valve on the line upto the main. The Fire Brigade Inlet shall be complete with necessary components like special fittings of medium quality MS bends, flanged tees etc. The plug shall be of moulded PVC.

3.20.2 . Fire Brigade Inlet connection for Tank filling Fire Brigade shall be four way with Stainless Steel instantaneous male inlet coupling connection for connection with Fire Brigade Vehicles

3.21 PRESSURE GUAGE

The pressure gauge shall be constructed of die cast aluminium and stove enameled. It shall be weather proof with an IP 55 enclosure. It shall be stainless steel bourden tube type pressure gauge with a scale range from 0 to 16Kg/cm² and shall be constructed as per IS : 3624.

3.22 PAINTING

All Hydrant and Sprinkler pipes shall be painted with post office red colour paint. All pipes shall first be cleaned thoroughly before application of primer coat. After application of two primer coats, two coats of enamel paint shall be applied. Each coat shall be given minimum 24 hours drying time. No thinners shall be used. Wherever required all pipe headers shall be worded indicating the direction of the flow in pipe and its purpose such as "TO RISER NO.1" etc. All necessary protection to adjacent objects shall be taken by the contractor. Flanges, Nuts, bolts, Gate and Non Return Valves shall be painted light grey. Nuts and bolts shall not be painted. Before painting, grease shall be applied to nuts and bolts so that it does

CONTRACTOR

EMPLOYER

not attract paint.

3.23 COUPLINGS

Couplings shall be of Stainless Steel, machined and polished to requirements. Both male and female couplings shall be fitted into each other smoothly and without any unnecessary force. Couplings shall be IS:903 marked with the name of the manufacturer. The coupling shall be tested to 25 Kg/cm² test pressure. The male couplings shall be provided with lugs for inserting female coupling.

3.24 BRANCH PIPE

The branch pipe shall be constructed from Stainless Steel alloy to IS : 903 and finished to a smooth polish. The branch pipe shall be able to give straight stream and shall be IS marked. The branch pipe shall be tested to 20 Kg/cm² pressure. The inlet bore shall be 63mm dia for quick coupling joint to the Hose and the nozzle side shall be 20mm dia.

LIST OF APPROVED MAKES

SNO	MATERIAL	MAKE
1	Pipes	Tata/Jindal/Surya/supreme
2	Hydrant Valve, Fire Brigade inlet, Branch pipe & Shut off nozzle	Safe guard/Newage/MiniMax/ceasefire
3	Rubber pipe for hose reel	Safe guard /Newage /Padmini
4	Pressure switch	Indfoss/Switzer
5	Pressure Gauges	H Guru/Fiebig/HD
6	Pump	Kirloskar/Grundfos/KSB/Mather & Platt
7	Motor	Kirloskar/Siemens/Crompton
8	Enamel painting	Asian/Berger/Nerolac
9	Primer	Asian/Jenson Nicholson
10	Fasteners	Hilti/Fisher
11	Coal Tar treatment for pipes	IWL/ Coatek
12	Weld rods	Advani/Essab
13	RRL Hose	CRC/Safe Guard/Newage/New Tech
14	Rubber Gasket	CIC/Varuna
15	Engine	Cummins/Caterpillar
16	Hose Drum	Eversafe/Superex/New Tech
17	Mechanical Seal	Durametallic/Burgmann
18	Strainer	Zoloto/Kirloskar
19	Control Valve	Central/HD
20	Flow Switch	Safex/System sensor/Resistoflex/Johnson Control/Rapid flow
21	Pipe fittings	Unik/VS/Zoloto
22	Sluice, Butterfly and Non Return Valves/ Air Valve	Zoloto/Kirloskar/New Tech/Sant/Castle
23	Anti Vibration Mounting	Dunlop/Resistoflex
24	Fire Sealent	Hilti/Birla 3M

CONTRACTOR

EMPLOYER

The tenderers shall quote their charges for **comprehensive maintenance service** (inclusive of all spares, consumables, routine, preventive and breakdown maintenance and inclusive all taxes like VAT, service taxes etc.) of wet riser fire fighting system including pumps which will be applicable after the expiry of the guarantee period and the contract amount shall be paid on quarterly basis on rendering satisfactory service. This service contract shall be renewed annually for further period of 6 years after one year guarantee period. Contractors are requested to quote their rate for CAMC also.

Apart from break down calls, the annual maintenance contract includes deputing a foreman /mechanic / service Engineer / once in a month to check all the equipment's under the supervision of LIC's staff and issuing a certificate for satisfactory working.

During the currency of the comprehensive annual maintenance service contract, if the downtime of any component of wet riser fire fighting system including pumps exceeds one day, in case of minor repairs and five days in case of major repairs, at any one instance, as may be allowed for major maintenance and descaling etc., a penalty equivalent to two times of the daily rate of service contract amount (arrived at by dividing the annual contracted amount by 360 and rounding it off to next higher rupee) multiplied by the number of penalty days, will be recovered from the payment due to the firm. In case the contractor is not able to render call back service due to "force majeure" conditions prevailing at their works/office, LIC may recover from the contractor, the pro-rata cost for that period. The vendor under such circumstances will be required to inform LIC the date of commencement/termination of such "force majeure" conditions in their works/office. For the purpose of penalty, following items will be considered as major repairs.

- a. Rewinding of motor
- b. Replacement of shaft, impeller, etc of Pumps,
- c. Replacement of bearings, gears etc.

They shall also ensure that the required spare etc. for proper maintenance is readily available with them.

Tenders will not only be evaluated on the basis of capital cost but also taking into account the rates quoted for comprehensive service contract for a total period of 6 years .

The Tenderer shall guarantee that the work shall confirm to the detailed specifications.

Before handing over of wet riser system, 3 copies of the Operation and Maintenance manual for major equipments shall be furnished to the Employer along with 3 sets of drawings of all the works done as executed by the Contractor.

CONTRACTOR

EMPLOYER

The routine inspection, testing, and maintenance of fire pump assemblies shall be conducted as per the table below.

Item	Activity	Frequency
Pump house, heating ventilating louvers	Inspection	Weekly
Inspection	Inspection	Weekly
Pump operation		
No-flow condition	Test	Weekly
Flow condition	Test	Annually
Hydraulic	Maintenance	Annually
Mechanical transmission	Maintenance	Annually
Electrical system	Maintenance	Varies
Controller, various components	Maintenance	Varies
Motor	Maintenance	Annually
Diesel engine system, various components	Maintenance	Varies

SPECIAL CONDITIONS OF CONTRACT

- 1) During the execution of work, if any permission is required from local bodies / Building authorities etc the same shall be obtained by the agency without any extra cost to LIC. Co-ordination with building authorities for carrying out the execution of the job is the sole responsibility of the contractor and necessary documentary assistance will be provided.

CONTRACTOR

EMPLOYER

- 2) Technical data/details and specification, if do not tally, are to be clarified with the Engineer In Charge.
- 3) All the materials to be used in the works should be as per the list of approved makes / brands unless otherwise mentioned specifically. The Contractor should understand that it will not be their prerogative to insist for using particular make / brand from the list enclosed . The final selection will be done with the approval of LIC.
- 4) It is the responsibility of the Contractor to make necessary security arrangements for his materials /Equipment
- 5) Any sundry civil works which are required to be done as a part of the installation / restoration shall be the responsibility of the vendor
- 6)The work is to be completed within 6 (six) months from the placement of LOI / work order.
- 7) Bidders may please note that Installation of control panels & detectors, laying of cables and commissioning jobs are required to be taken up during off office hours /nights, on Weekends /closed holidays, to avoid disruption of services and with the specific approval of Engineer In charge.
- 8) LIC will not accept any responsibility for the safety, welfare, insurance or accident claims in respect of the Contractor or his workman/ materials.
- 9) The Contractor shall remove all the debris outside of the premises up-to any distance without creating any nuisance to anyone and nothing extra will be paid on this account.
- 10) Job will be carried out in a workmanship like manner and Engineer In-charge reserves the right to reject job with poor workmanship.
- 11) Contractors are requested to visit site and get clarifications before quoting.
- 12) Since work has to carried out in the working office maximum care shall be taken while carrying out the work and there should not be any difference to the employees of LIC

CONTRACTOR

EMPLOYER