

TIDEL PARK LIMITED

TARAMANI, CHENNAI

TENDER FOR

OPERATION AND COMPREHENSIVE MAINTENANCE OF
FIRE PROTECTION SYSTEM AND FIRE FIGHTING SYSTEM

VOLUME – I

(CONDITIONS OF CONTRACT, SPECIAL CONDITIONS,
PREQUALIFICATION CONDITIONS, SYSTEM DESCRIPTION,
SPARES MANAGEMENT DETAILS, SCOPE OF WORK,
LIST OF EQUIPMENTS)

LAST DATE OF SUBMISSION : On or before 3.30 PM on 09.12.2011

TO BE SUBMITTED TO:

The Managing Director
TIDEL PARK LIMITED
First Floor, A - Block North,
No.4, Rajiv Gandhi Salai
Taramani, Chennai 600 113
Phone: 044-22540500-02,
Fax: 044-2254 1744
E-mail : tidel@md4.vsnl.net.in

TENDER SUBMITTED BY:

Name of the Company	
Name of the Authorised Person	
Signature of the Authorised person	
Date	

TIDEL PARK LIMITED

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TENDER FORM

To

The MANAGING DIRECTOR

M/s. TIDEL PARK LIMITED

No. 4, Rajiv Gandhi Salai,

Taramani

Chennai - 600 113

Dear Sir,

Sub : Tender for Operation and Comprehensive Maintenance of Fire Protection system and Fire Fighting System

Ref : Tender Notice issued in Newspapers on 08.11.2011
& also in Website: www.tidelpark.com.

TIDEL Park, a state-of-the-art Multistory Intelligent Building, with built up area of 1.3 million sq.ft., located on I.T. Corridor at Chennai, provides quality business space for IT companies since October 2000 and employees 12000 I.T Professionals. The building consists of various Electrical, Mechanical, and communication facilities. The Park has obtained ISO 9001 & ISO 14001 certification. Sealed tenders are invited for the following works from reputed contractors:

OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECION SYSTEM AND FIRE FIGHTING SYSTEM (O&CM of FPS)

A copy of the tender notice is enclosed.

M/s _____

has submitted a tender for **OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECION SYSTEM AND FIRE FIGHTING SYSTEM(O&CM of FPS)** .

1. Having examined the specifications, equipments lists, scope of work, schedule of quantities, general conditions, special conditions etc., relating to the works specified in the memorandum hereinafter set out and having visited and examined the site of the job specified in the said memorandum and having acquired the requisite information relating thereto as affecting the tender, I/we hereby offer to undertake the job specified in the said memorandum for the duration specified in the said memorandum at the rates mentioned in the attached schedule of quantities and in accordance in all respects with the specifications, scope of work and instructions in writing referred to in conditions of tender, the Articles of Agreement, Special Conditions, technical specifications, O&M activities of Fire Protection system works, Schedule of Quantities and Conditions of Contract and with such materials as are provided for, by, and in all other respects in accordance with such conditions so far as they may be applicable.

MEMORANDUM

- 1) a) Out line description of works : Operation and Comprehensive Maintenance of Fire Protection System and Fire Fighting System
 - b) The Comprehensive Operation and Maintenance required under above shall be to ensure that all plants and associated controls to be functional, operating within design parameters and correct maintenance as per the technical specifications of the equipment used in the Fire Protection System
 - c) Care taking shall commence by taking possession with all systems in satisfactory working conditions which are duly tested and commissioned, from the existing Contractor agency/P&FM in Co-ordination with the owner/P&FM.
 - d) Bidder / Contractor will be solely responsible for effective operation and comprehensive maintenance of the above mentioned works. The equipment to be operated and maintained, their functional operations, particulars of Manufacturers / models are explained / furnished in detail elsewhere in the tender document.
 - e) Earnest money : Rs. 40,000/- (Rupees Forty Thousand only) by Crossed Demand Draft in favour of TIDEL PARK LTD., payable at Chennai.
 - f) Period of Contract : Contract period commences from 01.01.2012 and period of contract will be for three years. The contract ends on 31.12.2014 The selected contractor shall mobilise man power, tools and tacks, etc as per tender conditions before 15 days of contract commencement date for knowing existing operation and maintenance practices of FPS system.
2. Should this tender be accepted, I/we hereby agree to abide by and fulfill the terms and provisions of the said Conditions of Contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to the **TIDEL Park Limited, Chennai** the amount mentioned in the said contract.
3. I/We have deposited a sum of Rs.40,000/- (Rupees Forty Thousand only) as earnest money with the TIDEL PARK LIMITED, which amount shall not bear any interest. Should I/we fail to execute the contract when called upon to do so, immediately after the issue of Letter of award by TIDEL PARK LIMITED, I/we do hereby agree that this sum shall be forfeited by me/us to the TIDEL Park Limited, Chennai.
4. All schedules necessary in connection with the job are enclosed as required.

5. Our bankers are:

i)

ii)

The names of partners / Director of our firm / Company are:

i)

ii)

Name of the partner / Director of the
firm authorised to sign :

or

Name of person having Power of Attorney to sign the contract. :
(Certified true copy of the
Power of Attorney should
be attached)

Yours faithfully,

Signature of Tenderer
along with Seal of the Tenderer

WITNESSES

i) Signature :
Occupation :
Address :

ii) Signature :
Occupation :
Address :

ARTICLES OF AGREEMENT

(Note: The given format is a sample one. However before signing, the draft format is to be approved from the TIDEL)

ARTICLES OF AGREEMENT made on this day of 2011 between the TIDEL PARK LIMITED having its office at First floor, A-Block North, Tidel Park No-4, Rajiv Gandhi Salai, Taramani, Chennai –600 113 (Hereinafter called "the Owner") of the one part and of the other part whose registered office is situated at(Hereinafter called "The Contractor")

WHEREAS the Owner is desirous of Operation and Comprehensive Maintenance including Repairs under Fire Protection system and Fire Fighting System (hereinafter called "the Work") and has caused documents and Schedule of Quantities showing and describing the work to be done.

AND WHEREAS the said documents numbered as per list attached to the tender document covering conditions, the specifications the Scope of work and the Schedule of Quantities initiated by TIDEL PARK LIMITED have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractor has furnished Bank Guarantee for a sum of Rs..... (Rupees) as Performance Bond, valid for entire contract period from the date of commencement for due performance of this agreement.

AND WHEREAS the Contractor has supplied the Owner with a fully priced copy of the said Schedule of Quantities (which copy is hereinafter referred to as "the Contract Bills") AND WHEREAS the said documents (hereinafter referred to as "the Contract Document") and the Contract Bills have been signed by or on behalf of the parties hereto.

NOW IT IS HEREBY AGREED AS FOLLOWS:

- 1. For the consideration hereinafter mentioned the Contractor will upon and subject to the Conditions annexed carry out and complete the job shown upon the Contract Document and described by or referred to in the Contract Bills and in the said Conditions.
- 2. The Owner will pay the Contractor the said contract amount Rs. (Rs..... only) (hereinafter referred to as "the Contract Sum") or such other sum as shall become payable hereunder at the times and in the manner specified in the said Conditions.
- 3. The said Condition and appendix thereto shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by, submit themselves to the Conditions and perform the agreements on their parts respectively in such Conditions contained.
- 4. The agreement and documents mentioned herein shall form the basis of this Contract.

5. This Contract is neither a fixed Lump sum Contract nor a Piece Work Contract but is a Contract to carry out the work in respect of provision of Operation and Comprehensive Maintenance services for the above mentioned works / systems at TIDEL Park Building complex and its services & Facilities to be paid for according to actual services performed and works done at the lumpsum rates contained in the Schedule of Quantities or as provided in the said Conditions.
6. The Contractor shall afford every reasonable facility for the carrying out of all works relating to the provision of Operation and Comprehensive Maintenance & Repairs in the manner laid down in the said Conditions till the completion of the contract.
7. The Owner reserves to itself the right of altering the Documents and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this Contract. There shall be changes ordered by the Owner on the scope and the Contractor shall not be entitled to any compensation or claim due to such change (s) / Order (s) by the Owner. The Contractor will only be paid for the actual services performed and works done payable at the accepted unit rates.
8. Timely performance of the contract obligation shall be considered as the essence of the Contract and the Contractor hereby agrees to commence the work on 01.01.2009 as provided for in the said Conditions and to perform the job during and within the stipulated contract period.
9. All payments by the Owner under this contract will be made only at Chennai in Indian Rupees and shall be within 14 (fourteen) days from submission of interim bills (Quarterly in arrears) including period of checking and certification by P&FM subject to bills being in complete shape and format to be mutually agreed.

The final payment will be made within a period 3 months after completion of contract and due verification of final bill with all necessary supporting documentation.
10. All disputes and differences of any kind whatsoever arising out of or in connection with the contract whether during or after completion of contract will be settled amicably in a spirit of co-operation and the final decision of the Owner shall be binding on the Contractor.
11. The contractor shall be an independent contractor for all purposes under this Agreement.
12. That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor.

If the Contractor is a partnership or an individual:

IN WITNESS WHEREOF the Owner and the Contractor have set their respective hands to these presents and hereof the day and year first herein above written.

If the Contractor is a Company:

IN WITNESS WHEREOF the Owner has set its hand to these presents through its duly authorised official and the Contractor has caused its common seal to be affixed hereunto and has caused these presents and hereof to be executed on its behalf, the day and year first herein above written.

Signature Clause

SIGNED AND DELIVERED by the
hand of :

Signature :

Name and Designation :

Address :

WITNESSES :

1. Signature :
Occupation :
Address :

2. Signature :
Occupation :
Address :

If the Contractor is a partnership firm, this agreement should be signed by all or on behalf of all the partners.

SIGNED AND DELIVERED BY

Signature :
Name and Designation :
Address :

WITNESSES :

1. Signature :
Occupation :
Address :

2. Signature :
Occupation :
Address :

The COMMON SEAL OF is hereunto affixed pursuant to the resolutions passed by its Board of Directors at the meeting held on 2004.

In the presence of :

1. Name and Designation :

2. Name and Designation :

If the Contractor signs under its common seal, the signature clause should correspond with the sealing clause in the Articles of Association.

Directors who have signed these presents in token thereof in the presence of :

1. Name and Designation :

2. Name and Designation :

If the Contractor signing by the hand of power of attorney, whether a company or individual.

SIGNED AND DELIVERED BY the Contractor by the hand of Shri and duly constituted attorney.

WITNESSES :

1. Signature :
Occupation :
Address :

2. Signature :
Occupation :
Address :

GENERAL INSTRUCTIONS AND NOTICE INVITING TENDER

Preamble:

Tender notice was issued by TIDEL Park Ltd., inviting sealed Tenders for the work.

OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECION SYSTEM AND FIRE FIGHTING SYSTEM(O&CM of FPS)

1. Sealed Tenders should be addressed to The Managing Director, TIDEL Park Limited, A-Block North wing, First floor, TIDEL Park No.4, Rajiv Gandhi Salai, Taramani, Chennai - 600 113, and superscribing the name of the tender on the top left hand corner of the cover and sent so as to reach him not later than **3.30 p.m. on 09.12.2011**. Tenderer shall be responsible for properly superscribing and sealing the cover in which the tender is submitted and Tidel Park shall not be responsible for accidental opening of the covers that are not properly superscribed and sealed as required in the tender documents before the time appointed for tender opening

The tender is of two bid system, pre-qualification cum technical bid and price bid. The tender document consisting of **Volume – I** pertaining to Pre-qualification cum technical bid containing Pre-Qualification Criteria Conditions, Conditions of Contract, Special Conditions, Technical Specifications, scope of work etc. and **Volume – II** pertaining to Price Bid containing Schedule of Quantities shall be submitted. All the enclosures, tenderers wish to submit, shall also be enclosed in the volume I. The two volumes shall be submitted in separate envelopes duly sealed and superscribing the name of work and tender volume number.

A Pre bid meeting will be held at TIDEL Park at **11.00 a.m on 24.11.2011**.

2. No tender will be received after **3.30 P.M. on 09.12.2011** under any circumstances whatsoever.
3. a. Volume – I of the tenders pertaining to Pre-qualification cum Technical Bid will be opened at **4.00 P.M. on 09.12.2011** at Office of the TIDEL PARK LIMITED by The Managing Director or any other Officer designated for this purpose by him in the presence of the Owners representatives and the tenderers or their representatives should they choose to be present. The other volume pertaining to schedule of quantities (Price Bid) shall be opened separately on a date to be fixed by the Owner and intimated to all the tenderers after preliminary scrutiny of Volume – I of the tender document and appraisal there of. If need be the tenderers may be called for discussion before opening Volume– II of the tender.
b. Tenders shall remain open for acceptance by the TIDEL Park Limited for a period of three months from the date of opening of the tender Volume-I (Pre-qualification cum technical bid) which period may be extended by mutual agreement and the tenderer shall not cancel or withdraw the tender during this period.
c. The tenderer must use only the prescribed forms issued by the TIDEL Park Ltd., to fill in the rates.

4. TIDEL Park Limited, discourages stipulation of additional conditions by the tenderers, as they are expected to accept the various provisions and conditions in the tender documents. Conditional tenders will not be accepted in any form.
5. If the tenderer desires to submit a covering letter with his tender, he may do so, but the covering letter shall not contain any reference to the amount of his tender or any financial aspect of tender. The covering letter shall be enclosed within the sealed cover containing Volume – I (Pre-qualification cum technical bid) of the tender. Crossed Demand Draft for Earnest Money Deposit shall also be enclosed in the sealed cover containing Volume - I. All the documents connected with the offer duly signed and seal affixed by the tenderer shall be appended at the time of submission of the tender. The tender shall be submitted to the Managing Director, TIDEL Park Ltd., Chennai in a sealed cover with the name of work superscribed, by the due date and time at the address given below.
6. If the sealed tenders are sent by post or courier service, the tenderers shall ensure that the tenders are posted or despatched sufficiently early so that the tenders are received by the TIDEL Park Ltd., within the stipulated date and time. The cover shall be addressed to The Managing Director, TIDEL Park Ltd., A-Block North Wing, First floor, TIDEL Park, No.4, Rajiv Gandhi Salai, Taramani, Chennai - 600 113. If the tenders are to be delivered in person at the above address, the sealed tenders shall be deposited before the stipulated date & time, at the aforesaid office. Tidel Park shall not accept responsibility for late receipt of tenders sent by post or courier service.
7. TIDEL Park Ltd., have the right to reject any tender that does not comply with the above procedure and stipulations.
8.
 - a) The tender form must be filled in English and all entries must be made by hand and written in ink. If any of the documents is missing, or unsigned, the TIDEL Park Ltd., in its discretion may consider the tender invalid.
 - b) Rates should be quoted both in figures and words in columns specified. In case of discrepancy between the rates quoted in figures and words, the lesser rate quoted either in words or in figures whichever is less shall prevail. All erasures and alterations made while filling the tender must be attested by initials of the tenderer and seal affixed. Overwriting of figures is not permitted; failure to comply with either of these conditions will render the tender invalid and it will be the option of the TIDEL Park Ltd., to accept or reject the tender. No unsolicited advice of any change in rate or conditions after the opening of the tender will be entertained.
 - c) Each page of the tender documents should be signed by the person or persons with seal of authority submitting the tender in token of his/their having acquainted himself/themselves with the General Conditions of Contract, Specifications, Special Conditions, etc., as laid down. Tender documents not so signed will be rejected.
 - d) The tender submitted on behalf of a firm shall be signed by all the partners of the firm or by a partner who has the necessary authority on behalf of the firm to enter into the proposed contract. Otherwise the TIDEL Park Ltd. may reject the tender.
9. TIDEL Park Ltd., do not bind itself to accept the lowest or any tender and reserve to itself the right to accept or reject any or all the tenders, either in whole or in part, without assigning any reasons for doing so.

10. a) Intending tenderers shall pay as earnest money a sum of Rs.40,000/- (Rupees Forty Thousand only) by a crossed demand draft drawn on a Nationalised/Scheduled Bank in favour of TIDEL Park Ltd., payable at Chennai. A tender which is not accompanied by such a demand draft will not be considered and deemed to be rejected. The earnest money will be returned to the unsuccessful tenderer without any interest, after finalisation of contract with the successful tenderer,
- b) Under no circumstances, earnest money deposit will be accepted in the form of fixed deposit receipts or Bank or Insurance guarantee or cheque.
- 11 The Earnest Money Deposit of the successful tenderer shall be returned without any interest by TIDEL Park Ltd., Chennai on furnishing a performance bond in the form of Bank Guarantee in approved format enclosed in the annexure-B for an amount of 10% of the highest annual contract value. The Bank Guarantee shall be valid upto the full contract period with additional revocable period of six months from the date of completion of the job and due fulfillment of the contract.
12. On receipt of Letter of Intent (LOI) from the TIDEL Park Ltd., of the acceptance of his/their tender, the successful tenderer shall be bound to implement the contract with the Owner and sign an agreement in accordance with the draft agreement and the Schedule of Conditions but the written acceptance in the form of Letter of Intent by TIDEL Park Ltd., of a tender will constitute a binding contract between the TIDEL Park Ltd., and the person / agency submitting the tender whether such formal agreement is or not subsequently executed.
13. All compensation or other sums of money payable by the Contractor to the Owner under the terms of this Contract may be adjusted/deducted either from payment of amount due or by call of performance guarantee if the amount due is not sufficient for such adjustment and the contractor fails to make good in cash the amount within 10 days of intimation to do so by the Owner.
14. The Contractor shall not assign the Contract. No portion of the Contract shall be given on subcontract except with the written consent of the Owner. In case of breach of these conditions, the Owner may serve a Notice in writing to the Contractor / rescinding the Contract whereupon the Performance Bond shall stand forfeited to the Owner, without prejudice to his other remedies / rights against the Contractor and specifically those under clause 26. of the General Instructions and Notice Inviting Tender.
15. The Contractor shall carry out all the work strictly in accordance with Documents, details and instructions of the Owner's Representative. Any changes desired by the Owner, the Contractor shall carry out the same without any extra charge. The Owner's decision in such cases shall be final and binding on the Contractor.

Owner has appointed a P&FM agency (Premises and Facilities Management) to take an overall and single point responsibility for an efficient co-ordination of Operations and Maintenance of the entire complex including all services. The P&FM agency is appointed on the basis of competitive Bidding and is responsible for ensuring efficient full-time Operation / Maintenance including posting necessary Technical and Service Personnel and to co-ordinate and manage the entire O&M operations for all the packages including day-to-day Operation, reporting and data management, preventive and regular maintenance of equipment and components, as well as comprehensive repairs, replacement of spares (except consumables) as may be required, in an integrated manner so as to ensure a trouble free and

smooth functioning of the complex in entirety and to ensure maximisation of operative life of Plant and Machinery. The selected Contractor will be inducted with this P&FM agency and should undertake the O&M duties as in the items of the Bill of quantities under the over all management and control of the P&FM agency, selected by the Owner.

16. A Schedule of Quantities in respect of each Bill of work is covered in Volume – II. The Schedule of Quantities is liable to alterations, omissions, deductions or additions in the scope of work and items of work at the discretion of the Owner. Each tender should contain not only the rates but also the value of each item of work entered in the amount column and all the items should be totaled in order to show the aggregate value of the entire tender. The value of each item worked out shall be rounded off to a nearest rupee ignoring paise below fifty.
17. The tenderer must obtain for himself on his own responsibility and at his own expense all the information which may be necessary for the purpose of making a tender and for entering into a contract and must examine the Documents and must inspect the site of the work and acquaint himself with all local and site conditions, means of access to the job, nature of the job, nature of Operations and comprehensive Maintenance Contract already signed by Owner with the existing contractor, nature of plant and machinery as well as services being installed; and the availability of any infrastructure and all matters appertaining thereto. Ignorance of the site conditions or the nature and details of existing contract or the specifications of any work falling within the ambit of the Contractor shall not be accepted by the Owner as a basis for any claim for compensation.
18. The rates quoted in the tender shall include all charges for completion of job during the Contract period.
The rates quoted shall be deemed to be for the finished job of all services as determined at site. The rates shall also be firm and shall not be subject to exchange variations, labour conditions and wages, fluctuations in railway freights or any conditions whatsoever. Tenderers must include in their rates all taxes such as VAT, sales tax on works contract, excise duty, octroi, customs duty and any other tax and duty or other levy levied by the Central Government or any State Government or local authority, as applicable including any variation during the Contract period. No claim in respect of sales tax, excise duty, octroi or any other tax, duty or levy as existing or future shall be entertained by the Owner. No claim shall be entertained for any variation of any of the above items / taxes in any manner. However, service tax shall be indicated separately in the invoice and shall be paid by the owner at accruals
New taxes if any imposed by State or Central Govt., shall be reimbursed by TIDEL after due examination by TIDEL and after production of satisfactory evidence of having paid the taxes by the Contractor.
19. The Contractor should note that unless otherwise stated the tender is on lump sum rate basis and his attention is drawn to the fact that rates for each and every lump sum should be correct, workable and self-supporting.
20. Timely performance of the Contract Obligation shall be strictly observed by the Contractor and it shall be reckoned from the 01.01.2012. The successful tenderer shall before commencing work prepare a detailed work programme and the same should be submitted 15(Fifteen) days in advance, which shall be approved by the Owner. The job shall be done with all due diligence and if the Contractor fails to perform in time, he shall be liable to pay liquidated damages (not as penalty) as defined in clause 33 of the Conditions of Contract.

21. The successful tenderer is bound to carry out any related and connected work necessary for proper performance of the job even though such work(s) is or are not specifically mentioned or included in the item of work. No claim in this respect shall be entertained unless considered beyond the scope of the agreement by the Owner whose decision is binding on the Contractor.
22. The successful tenderer must note that all performance of the job shall be strictly in accordance with the requirements and fulfillments of the local/public authorities, statutory approvals and to the requirements of Owner and no deviation on any account will be permitted.
23.
 - a) The successful tenderer shall make his own arrangement to obtain all the materials required for the Operation and Comprehensive Maintenance of all the equipment needed for smooth functioning, including all the spares, (refer details Annexure- I) all types of consumables required for the works.
 - b) While making the tender, the tenderer should keep his rates firm till the completion of the job / end of the contract period and no price variation therefor shall be considered for any reason whatsoever.
24. Supply of water and electricity required for performance of operation and maintenance services shall be made available free of charge by the Owner. However, the successful tenderer shall bear all costs of extending supplies from the source for maintenance purposes to place of work, maintaining the supplies, etc. as required, within the quoted rates.
25. The Contractor shall strictly comply with the provision of safety code and safety manual annexed hereto. The Contractor shall keep the Owner fully indemnified against any claims or liabilities arising out of Contractor's lapse in safety practices.
26. The amount covered by Performance Bond Bank Guarantee of the successful tenderer will be forfeited if the Contractor fails to comply with any of the conditions of the Contract.
27. The successful tenderer/Contractor shall mobilise all men and materials required for timely performance of the O&M involving various activities 15 days before contract commencement date.
28. The tenderer shall furnish along with Technical Bid, a detailed write-up indicating the man power qualification and category-wise of minimum personnel to be deployed as required by TIDEL vide Annexure -C at site for performance of the services.

CONDITION OF CONTRACT
(DEFINITIONS AND INTERPRETATION)

1. Interpretation clause

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

a) "Owner"/"Employer" : shall mean TIDEL PARK LIMITED, CHENNAI and shall include its assigns and successors.

b) "P&FM" : Shall mean the Premises and Facility Management agency appointed by the Owner.

c) "Contractor" : shall mean the operation and Comprehensive Maintenance Contractor of Fire Protection System

In the case of a partnership firm

 trading as partners in the name and style of

 and having a place of business at

 and shall include the partners for the time being of the said firm and the legal representatives of a deceased partner.

In the case of individual "Contractor" / "Contractor" mean Thiru..... trading in the name and style of

 and shall include his heirs, successors and legal representatives.

In the case of company "Contractor" / "Contractor" shall mean

 a company incorporated under the act dated 19.....
 and having its registered office at and shall include its successors and permitted assigns.

2. Definitions

The contract document consists of the Agreement, General Instructions and Notice Inviting Tender, Conditions of the Contract, Special Conditions, Technical Specifications and Schedule of quantities, tender form , tender documents including all modifications thereof incorporated in the document before the execution. These form the contract.

The Owner : TIDEL PARK LIMITED, CHENNAI

The Contractor :

All those mentioned as such in the Articles of Agreement shall include their legal representatives, assigns or successors. They are treated throughout the Contract Document as if each were of the singular number and masculine gender.

"The Site" shall mean the site of the contract work / job including any building and erections thereon; any other land allotted by the Owner for the contractor use and any other nearby land that Owner may include for beneficial use by Occupants of TIDEL PARK LIMITED.

"Contractor" shall mean the specialist agencies whom the Owner has selected and appointed (existing as well as those to be appointed) for specialist works such as Lifts and Escalators, HT and LT installation, ACMV works, Fire Protection System, IBMS, Façade Cleaning, Housekeeping, Security services, Landscaping, Communication backbone, DG Sets, etc. who execute their respective works for the Owner as a Contractor with Owner. The Sub-contractors have, as part of their respective contract, responsibility towards Owner for Operations and Maintenance for specified periods as per their respective contracts.

"Occupant" shall mean authorised persons, agencies, companies who have been authorised by the Owner to occupy any part of the building either under outright sale or through a Lease Deed or authorised sub-lease for a specific period.

P&FM shall mean the authorised agency appointed by the owner with an overall and single point responsibility for managing entire services of TIDEL Park.

The term "Sub-Contractor", as employed herein, includes those having a direct contract with the Contractors and it includes one who furnishes material worked to a special design according to the plans or specifications of this work but does not include one who merely furnishes material not so worked. Any one doing work on a piece rate basis shall be deemed a Sub-Contractor. The Term "Sub-Contractor" shall also include such specialist agencies selected by the Owner in future and nominated to the Contractor as Sub-Contractor under an overall and single point responsibility assigned to the contractor to get the contract successfully completed.

Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an office of the corporation for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice.

The term "Work" of the Contractor includes labour or material or both and other applicable items.

All time limits stated in the contract document are of the essence of the contract.

The law of the place of work shall govern the job under this contract.

The performance during the Contract period shall be in accordance with the Contract Documents as modified by any change or variation orders agreed to by the parties and to the satisfaction of the Owner, so that the Owner can issue completion certificate within three months after the end of the term of Agreement.

The words 'Bidder' / 'Tenderer' shall mean the specialised Contract agencies who tender for the work.

3. **Contract Document**

The following documents shall constitute the contract document.

- I. Tender Form
- II. Articles of Agreement.
- III. General Instructions and Notice Inviting Tender
- IV. Conditions of Contract and Appendix.
- V. Specifications
- VI. Schedule of Quantities (Contract bills)
- VII. Special Conditions
- VIII. Various Annexures as referred under this Contract.
- IX. Letters and documents including the covering letter of the tenderer, minutes of meeting, if any, post tender and the letter of Intent / Award by the Owner.

The Contract Document is complementary. What is called for in any one shall be as binding as if called for by all.

The Contractor shall prepare three sets of contract documents and deliver the same to Owner for execution / signatures. Immediately after the execution of the contract one copy of the Contract Document and As-Built Drawings, Manuals (as applicable) shall be supplied by the Owner without charge to the Contractor.

Provided that nothing contained in the said Specifications, Descriptive schedule or other document shall impose any obligation beyond those imposed by the Contract Document and its connected Drawing, the Contract Bills, the Articles of Agreement and these conditions of contract and General Instructions and Notice Inviting Tender.

The Contractor shall keep at site one copy of the Specifications, Descriptive schedule or other like document referred to in this clause and one copy of the Contract Document and connected As-Built Drawings, Manuals and such other details supplied to him from time to time and referred to in this clause.

4. **Type of Contract**

The Contract shall be a lump sum and unit rate contract. The Contractor shall be paid for the actual work done and services performed, at site, at the rates quoted by him in the Contract.

5. **Schedule of Quantities**

The schedules of Quantities given in Contract Bill are meant to indicate the intent of the work and to provide a uniform basis for tendering. The Owner reserves the right to add or delete from the scope of work, items as he may deem fit and the Contractor shall not claim any extras or damages on these grounds.

Any error in description or in quantity or omission of items from the Contract Bill shall not vitiate this Contract but shall be treated as a variation.

6. **Contract Drawings**

All drawings, Schedule of Quantities and Specifications and copies thereof furnished by the Owner are his property. They shall not be used on any other work and shall be returned to the Owner at his request on completion or termination of the Contract. During the period that the copies of the Asbuilt drawings and manuals are in the custody of the contractor, the same shall be disclosed to the officials or employees/Personnel of the Contractor on a need to see basis only to maintain security. The Contractor's liability on this account shall be a strict liability

7. **Contract Sum / Contract Price**

The Contract sum or Contract price shall be the total amount quoted by the successful tenderer and accepted value of the work as mentioned in the letter of acceptance of the owner.

The Contract sum shall not be adjusted or altered in any way whatsoever otherwise than in accordance with the express provisions of these conditions.

8. **Contract Bills**

The quality and quantity of the work included in the contract sum shall be deemed to be that which is set out in the Contract Bills which Bills unless otherwise expressly stated in respect of any specified item shall be deemed to have been prepared in accordance with the principles of the standard method of measurement of building works last before issued by the Bureau of Indian Standards but save as aforesaid nothing contained in the Contract Bills shall override, modify or affect in any way whatsoever the application or interpretation of that which is contained in these conditions.

Any error in description or in quantity or omission of items from the Contract Bills shall not vitiate this Contract but shall be corrected and deemed to be a variation required by the Owner.

9. **Scope and Intent**

Scope

The Fire Protection system works are to be Operated and Comprehensively Maintained on a round the clock, full time basis for the specified period to a high international standard. The details about the scope of work are more fully described elsewhere in this document, but, in brief, the Owner expects the Contractor to take a single point and full responsibility of Operation and Comprehensive Maintenance of the Fire Protection system covered by this contract. The Owner's objective is that Contractor does not perceive this as a short term or a one-time contract but as an exercise in Asset value maximisation and Asset Life Prolongation.

The selected P & F Management agency shall takeover the overall and single point responsibility of managing all the O&M contractors and will act as leader of the team and manage and co-ordinate all the O&M activities in a collective and co-ordinated manner to establish high standards of O&M expected by the Owner.

TIDEL requires a single point responsibility for the Contractor in controlling and managing in respect of the works / system covered by this contract during the entire contract period. TIDEL is looking for imposing / charging Liquidated Damages (not as penalty) on the Contract in terms of one day's O&M charges in case of failure of any utility / service for each occurrence, for each day of delay has agreed by the contractor herein.

The bidders are expected to price the attached bills of quantities with workable and sustainable rates, which shall remain firm for the full duration of the contract. No price change will be admitted due to a lack of understanding of the contractual conditions or inadequate study of the present conditions of contract or improper understanding of the level of plant and machinery installed in the building complex or improper assessment of manpower, spares, equipment, supervision or any other reasons whatsoever.

The bills of quantities are divided into several sections. The rates quoted for each section shall be self sustainable and correct reflective of the Scope envisaged. The Owner reserves the right to add or delete from the Scope of work, items as he may deem fit. The successful bidder cannot make any claim on account of such changes.

The work is for Operation and Comprehensive Maintenance under single point responsibility and shall be with modern systems and services of International Quality, integrating all functions necessary to support the daily operations to high-tech operations and maintenance smoothly, deploying competent, trained and experienced work force under a well structured system and using modern management techniques including hardware and software support. Maintenance of fire protection system shall be ensured as 'Life Time Care' with planned preventive maintenance schedule, procedures, self-audit and continuous improvement, precisely determining most appropriate type and level of services to fulfillment of standards as per ISO 9001 and ISO 14001 policies and objectives of TIDEL Park.

The single point responsibility shall cover:

- a) Taking possession with all service systems in satisfactory working conditions duly tested and commissioned, from the existing Contract agency and with the P&FM in Co-ordination with the Owner.

- b) Assist Owner technically and administratively in the process of taking over and handing over of office modules with the respective inventory list.
- c) All maintenance for equipment, sub-system and installation shall include planned preventive, routine, annual and breakdown maintenance. For each, the Contractor should follow the existing procedures and if any improvement is necessary, the same shall be incorporated after TIDEL's approval. During contract period, Contractor may liaise with Original equipments manufactures (OEM). The selected Contractor shall co-ordinate with existing Contractor and P&FM for knowing existing operation and maintenance practices during handing over of system
- d) Adequately man the O & M implementation inclusive of support from their Head Office, on Administration and Technical matters. Also provide adequately for transport, insurance, uniforms etc. for all O & M staff.
- e) **Supporting Details**
 - i) Annexure `A'
Details of site covering location, temperature, rainfall, humidity, wind etc.
 - ii) Annexure 'B'
Bank Guarantee Formats
 - iii) Annexure `C'
Minimum Man Power Projection
 - iv) Annexure `D'
Quality Control and Assurance
 - v) Annexure `E'
Co-ordination Procedure
 - vi) Annexure `F'
Hand Book on Health and Safety at Work
 - vii) Annexure `G'
Insurance Confirmation letter
 - viii) Annexure 'H'
Pre Qualification Conditions
 - ix) Annexure "I"
Spares details
 - x) Annexure "J"
Machinery Breakdown Insurance Policy(MBD) details

9.1 **Extent :**

The Contractor shall carry out and complete the work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the Owner/P&FM. The Owner/P&FM may in his absolute discretion and from time to time issue further details and/or written instructions, written directions and written explanations all of which are collectively referred to as Owner's instructions.

9.2 **Intent :**

The intention of the Document is to include all labour and materials, equipment and transportation necessary for the proper performance of the job. Materials of work described in words, which so applied, have a well known technical or trade meaning shall be held to refer to such recognized standard.

10. **Place of Work**

Visit: Before tendering, the Contractor shall have visited and examined the place of work and satisfied and understood himself as to the correct requirement of the work / job and the facilities for obtaining any special articles called for in the tender / Contract Document and shall have obtained generally his own information on all matters affecting performance of the job.

No extra charge / claims made in consequence of any misunderstanding or incorrect information on any of these points, will be allowed nor entertained. Should the Contractor after visiting the place of work, find any discrepancies, omissions, ambiguities or conflicts in or among the tender / Contract Document, or be in doubt as to their meaning, he shall bring the questions to the Owner's attention, not later than 5 (five) working days before the date of the Pre-bid Meeting.

Possession:

The successful bidder shall be allowed admittance to the works place on the 'Date of Commencement' stated in the appendix and he shall thereupon and forthwith begin the work and shall regularly proceed with the performance of the job till the end of the contract period stated in the appendix subject nevertheless to the provision for renewal of time hereinafter contained.

TIDEL will make available rent free office space in Fire Protection System Pump room for running Contractor office. Providing & Installation of computer systems, Fax, Telephone, e-mail etc shall be got done by Contractor at their own cost. Electricity and water used for the Contract operations for the entire building will be given free of cost. TIDEL will make available open space in adjoining premises for storage / workshop facilities if need be , on a case to case basis. For tendering purpose, the cost of construction of storage / workshop facilities, if need be on a case to case basis in the open space need not be included in the quoted rates.

11. **Defect/Complaint cum Rectification Programme Chart:**

The successful bidder shall follow the existing formats approved by the Owner on day to day basis. The charts indicate the method of Operation and Comprehensive Maintenance to be executed for each group of service, the date of commencement and completion of each of the defect/complaint. The chart shall also indicate the availability of materials and labour therefor. If the Contractor feels any improvement required in the existing formats, the same should be brought to the notice of the TIDEL management and get approved before execution.

12. **Access for Owner to the Works:**

The Owner and his authorised representatives shall at all reasonable times have access to the Works and to the workshops or other places of the Contractor where work is being prepared for the Contract.

13. **Performance Bond:**

The successful bidder shall deposit with the Owner for due performance of the Contract a Bank Guarantee for a sum equal to that referred to in clause no.11 of General Instructions and Notice inviting tender as 'Performance Bond' upon the receipt of Letter of Intent for the work.

The Performance Bond shall be in the form of Bank Guarantee as per the format approved by the Owner and shall remain so deposited with the Owner for full period of contract from the date of commencement.

The said Performance Bond in the form of Bank Guarantee shall indemnify the Owner against loss from defects arising from any cause under this Contract or due to the failure of the Contractor to promptly carry out any matters arising under this Contract.

14. **Owner's Representative :**

Owner's Representative shall mean the person authorised by the Owner and acting under the orders of the Owner to inspect the works, the successful bidder shall afford the Owner's Representative every facility and assistance for inspecting and checking the works and materials.

The Contract will be administered by the MANAGING DIRECTOR of TIDEL Park Limited. He will be the final authority in all matters concerning the administration of the Contract and his decision will be final and binding on all parties.

15. **Contractors field organisation and Equipment**

15.1 **Operation & Maintenance Incharge**

The Contractor shall constantly keep a watch on his work during the progress of work and shall deploy required qualified and competent engineer as an O&M Incharge who shall have experience in the field of Operation and Maintenance of Fire Protection system (such as hydrant, sprinkler systems and extinguishers) and with a Diploma in Mechanical Engineering and should have a minimum of 5 years experience.

The O&M Manager will be responsible for carrying out the job to the true meaning of the Contract document, Schedule of Quantities, Technical specifications, equipments operations, Owner instructions and directions to the satisfaction of the Owner/P&FM. Any directions or instructions given to him by the Owner or his authorised representative shall be deemed to have been issued to the Contractor. The man power of experienced and trained technical and non-technical support staff shall assist the works as required to fulfill the scope of work envisaged as listed in the Annexure-C. The exact organisation chart to be implemented shall be got approved from the Owner prior to commencement. If the Owner establishes at any time the need to augment the field organisation, either on a short term or long term measure, the Contractor is bound to implement Owner's instructions forthwith within the agreed rates.

In the case of replacement of any engineer so deployed with the others of required qualification, TIDEL shall be informed at least 3 months in advance. Frequent replacements of engineers has to be avoided. No staff shall be replaced within one year from his date of joining unless otherwise, TIDEL desires to relieve him. No staff shall be relieved/replaced from this site, without the concurrence of TIDEL

15.2 Arrangement of Execution of Work

The Contractor shall arrange for all materials, tools tackles, equipment and labour necessary including its transportation for proper execution and completion of the job and contract to the satisfaction of the Owner.

16. A. Safety Code and Safety Rules

First Aid facility shall be maintained in a readily accessible place of the contractor site office including adequate supply of sterilised dressings and cotton.

Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from ground.

No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm (clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used an extra mazdoor shall be engaged for holding the ladder.

The excavation material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of trenches whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.

Every opening in the floor of this building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one metre.

No floor, roof or other part of the structure shall be so overloaded with debris or materials as to render it unsafe.

No paint containing lead or lead products shall be used except in the form of paste or readymade paint.

The workers should be provided suitable facemasks for use when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.

Overall shall be supplied by the Contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during the period of cessation of work.

Hoisting machines and tackle used in the works, including their attachments, anchorage and supports shall be in perfect condition.

The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

16. B Safety rules to be followed by the contractor(s) during execution of work

All electrical equipment used by the Contractor should have double earthing and to be connected through an ELCB. No temporary electrical connections with loose wire will be permitted. For all electrical connections, proper sockets and plugs will

be used and wiring / cabling clamped.

TIDEL desires that un-necessary waste of energy shall be avoided. Electrical hand tools like drilling machine will be of 230 volts AC type. ELCB's shall be used wherever power and electrical connections are taken by the Contractor.

All staff working at heights shall use safety belts, helmets and standard platforms with 42" height railing. All the staff working shall as far as possible wear shoes. All electricians should have wiremen's license. Only Standard ladders should be used.

Inflammable/explosive materials like Petrol, diesel, Kerosene, Wax, etc. will not be allowed to be stored at site stores. Crackers/explosives will not be allowed inside the premises at any cost.

Personal protecting equipment like Gloves, Safety Belt, Safety Helmet, etc. should be used and available in Contractor's stores.

If correct manual handling is not used, it can result in back injuries. Therefore all workers should be trained in safe manual handling. Special objects require special handling. All scaffolding will be of steel and double stage.

Contractor to ensure that all equipment tools, brought on to the premises will be in a safe conditions have recently been checked and that all personnel using the equipment and tools have been trained in their safe use. Contractor to ensure that whilst on site premises, he will comply with all health and safety legislation as required by the Owner.

All the platforms, scaffolding and catwalks should have railings of 1 mt. height and 100 mm toe board. All the catwalks should be minimum 450 mm wide and have grill type. All ladders should have handrails. Use of asbestos in any form is to be prevented.

17. Hand book on health and safety at work

The Contractors to do work in the project shall follow and ensure that the guidelines given in the handbook on health and safety at work appended herewith Annexure – "F" are complied with during the execution of works.

18. Payment to local bodies/ Authorities

All payments to local bodies/authorities towards ESI, PF, Insurance etc. and for adhering to Contract Labour Laws shall be borne by the Contractor within his quoted rates. The contractor is responsible for the above statutory payments for the entire contract period. The Contractor shall produce evidence of payments to TIDEL along with his invoices. The Contractor shall indemnify the Owner against any claim due to the above.

19. Statutory obligations, notices, fees and charges

The Contractor shall comply with and give all notices required by any Government authority, and instrument, rule or order made under any Act or Parliament or State Legislature or any regulation or Bye-law of any local authority relating to the work or with whose system the same is or will be connected.

The Contractor shall pay and indemnify the Owner against liability in respect of any

fees or charges (including any rates and taxes but not including service tax. The contractor shall produce evidence of remittance of service tax collected to the concerned authorities) legally demandable under any Act of Parliament, or State Legislature instrument, rule or order or any regulation or Bye-law or any local authority in respect of the contract work.

20. **Royalties and patent rights**

All royalties or other sums payable in respect of the supply and use in carrying out the Work as desired by or referred to in the Contract Bills of any patented articles, process or inventions shall be deemed to have been included in the Contract sum, and the Contractor shall indemnify the Owner from and against all claims, proceedings, damages, costs and expenses which may be brought or made against the Owner or to which he may be put by reason of the Contractor infringing or being held to have infringed any patent rights in relation to any such articles, processes and inventions.

21. **Licenses and Permits for Materials under Government control**

Licenses and Permits for all materials under Government control shall be obtained by the Contractor through the collaboration and help of the Owner, the Contractor shall include in his tender all transport charges and other expenses likely to be incurred to bring the materials to the Site.

22. **Water**

The Contractor is permitted to avail the services available at site free of charge. However, any dis-proportionally large or a high volume consuming activity shall be performed only after prior approval is obtained from the Owner.

23. **Assignment or giving on sub-contract**

The Contractor shall not without the written consent of the Owner assign the whole or any part of the Contract, and shall not without the written consent of the Owner (which consent shall not be unreasonably withheld to the prejudice of the Contractor) give on sub-contract any portion of the work.

24. **Sub Contractor**

- a. Any other specialised work identified by the Owner during the execution of work that may arise shall be got executed by other agency(s) engaged by the Contractor as Sub-contractor(s) on approval of the Owner after adopting the procedures given below.
- b. The Owner will have the right to call for additional information as may be required to assess the capability of Sub-contractors or even to inspect their previous works for fully satisfying themselves on the performance of the Sub-Contractors. The Owner, thereafter will convey their approval to the Contractor for selection of Sub Contractor, minimum being one number per trade or in the event of a special need for engaging more than one such specialist, upto a maximum of three in each trade. The Contractor shall engage only such approved Sub-Contractor. If Owner is not satisfied with the capacity and experience of the Sub Contractor proposed by the Contractor, the Owner shall have the right to nominate an agency / agencies of their choice whom the Contractor shall be bound to engage forthwith. The decision of the Owner in identifying and selection of Sub Contractor shall be final and binding on the Contractor. If during execution, the

performance of any such Sub Contractor is found to be unsatisfactory, the Owner shall reserve the right to order termination of such Sub Contractor and nominate alternative agency to continue the works. The Contractor shall comply with such instructions promptly and effectively.

- c. All the terms and conditions under this Contract shall be equally enforceable on the Sub-Contractor for the trade and accordingly the Contractor shall have a tie up with each of the Sub-Contractors.
- d. The Contractor and Sub-Contractor shall further be governed as under:
- e. That the Contractor shall get the sub-contract works carried out and completed in every respect to the reasonable satisfaction of the Owner and in conformity with all the reasonable directions and requirements of the Owner.
- f. That the Sub-contractor shall observe, perform and comply with all the provisions of this contract of the Contractor to be observed, performed and complied with so far as they relate and apply to the Sub-contract works or to any portion of the same.
- g. That the Sub-Contractor shall indemnify the Contractor against claims in respect of any negligence, omission or default of such Sub-contractor, his servants or agents or any misuse by him or them of any part of the building and services, and shall insure himself against any such claims and produce the policy, or policies and premium and premium receipts as and when required by the Contractor.
- h. That Sub-Contractor shall indemnify the Contractor against the same liabilities in respect of the Sub-Contractor work as those for which the Contractor is liable to indemnify the Owner under this Contract and the Owner will not be liable for any claims made by the Sub-Contractors against the Contractor.
- i. That payments in respect of any work, materials or goods comprised in the Sub Contract shall be made within a reasonable period of time by the Contractor.
- j. That the Owner and his representative shall have right of access to the workshops and other places of the Sub-Contractor as mentioned in clause 12 of these conditions.
- k. That the Sub-Contract work shall be completed within the period or (where they are to be completed in sections) periods therein specified, that the Contractor shall not without the written consent of the Owner grant any extension of time for the completion of Sub-Contract work or any section thereof, and that the Contractor shall inform the Owner of any representations made by the nominated Sub-Contractor as to the cause of any delays in the progress of completion of the Sub-Contract work or of any section thereof.
- l. That if the Sub-Contractor shall fail to complete the Sub-Contract work or (where the Sub-Contract works are to be completed in sections) any section thereof within the period therein specified or within any extended time granted by the Contractor with the written consent of the Owner, and the Owner certifies in writing to the Contractor that the same ought reasonably so to have been completed the Sub-Contractor shall pay or allow to the Contractor either a sum calculated at the rate therein agreed as Liquidated Damages (not as penalty) for the period during which the said work or any section thereof, as the case may be, shall so remain or have remained incomplete or (where no such rate is therein agreed) a sum

equivalent to any loss or damage suffered or incurred by the Contractor and caused by the failure of the Contractor as aforesaid.

- m. Neither the existence nor the exercise of the foregoing powers nor anything else contained in these conditions shall render the Owner in any way liable to any Sub-Contractor.
- n. The Contractor shall allow in the quoted rates for general attendance upon Sub-Contractors including free use of water electricity and other facilities and to allow them the use of sanitary conveniences, storage facilities for storing materials, other amenities and affording them all reasonable facilities for carrying out their Contracts. No separate payment will be made by the Owner for these services.

25. Separate contracts

The Owner reserves the right to let other Contracts in connection with the work under similar general conditions if necessary.

26. Variations

The term "Variation" as used in these conditions shall mean any additional services not within the scope of service required to be performed during the currency of the contract.

The Owner may issue instructions requiring a variation and sanction in writing any variation made by the Contractor. No such variation required by the Owner or subsequently sanctioned by him shall in any way vitiate this contract.

If the Owner decides the variation shall be carried out, he shall ask Contractor in writing to quote his price. Thereupon Contractor shall submit his price for additional services with full details in writing. After finalising the price with Contractor, the Owner shall give his written acceptance to carry out the variation. No variation shall be paid where it shall be within the scope of service or shall be due to Contractor act or omission in complying with this contract.

27. Deduction for uncorrected work

If the Owner deems it inexpedient to correct the work damaged or not done in accordance with the Contract, an equitable deduction from the Contract price and the amount of such loss which arised due to non completion of the work in time shall be deducted from the payment of Contractor.

28. Fluctuations

The Contractor shall not claim any extras for fluctuation of price and the Contract Price and item rates shall not be subject to any rise or fall of prices and shall be firm throughout the tenure of the contract.

29. Unfixed goods and materials

Unfixed materials and goods intended for, delivered to and placed on or adjacent to the work shall not be removed except for use upon the work unless the Owner has consented in writing to such removal which consent shall not be unreasonably withheld.

30. **Materials and Workmanship**

All materials and workmanship shall be as per the relevant code of BIS or relevant Specification and of approved type and the Contractor shall immediately remove from the works any material and/or workmanship which in the opinion of the Owner are defective or unsuitable and shall substitute proper materials and/or workmanship at his own cost. The term approval used in connection with this contract shall mean the approval of the Owner.

The Contractor shall if required submit satisfactory evidence as to the kind and quality of material.

Where special makes or brands are called for they are mentioned as a standard. Others of equal quality may be used provided approval is first obtained in writing from the Owner. Unless substitution are requested no deviation from the Specification will be permitted.

The Contractor shall indicate and submit evidence in writing of those materials or articles called for in the Specifications that are not obtainable for installation in the work within the reasonable Time Limits of the performance of the job.

All materials shall be delivered so as to ensure a speedy and timely performance of the job. Such material shall be stored so as to cause no obstruction and so as to prevent overloading of any portion of the structure, and the Contractor shall be entirely responsible for damage or loss by any cause whatsoever.

Inspection

All materials and workmanship shall be subject to inspection, examination, and test by the Owner/P&FM at any and all times during the period of contract. The Owner shall have the right to reject defective material and workmanship or require its correction. Rejected material and workmanship shall be satisfactorily replaced with proper material without additional charge therefor and the Contractor shall promptly segregate and remove the rejected material from the site. If the Contractor fails to proceed at once with the replacement of rejected materials and / or the correction of defective workmanship, the Owner may by contract or otherwise replace such materials and/or correct such workmanship and charge the cost thereof to the Contractor, or may terminate after giving reasonable notice the right of the Contractor to proceed further with the work.

The Contractor shall furnish promptly without additional charge all reasonable facilities, labour and materials necessary for the safe and convenient inspection and test that may be required by the Owner.

31. **Defects**

The Contractor shall make good at his own cost and to the satisfaction of the Owner, all defects, or small faults, arising in the opinion of the Owner from work or materials not being in accordance with the Drawings or Specifications or Schedule of Quantities or the Instructions of the Owner.

Such defects, faults shall upon directions in writing of the Owner / P&FM, and within such reasonable time as shall be specified therein be amended and made good by the Contractor, at his own cost unless the Owner shall decide that he

ought to be paid for such amending and making good and in case of default the Owner may employ and pay other agency to amend and make good such defects, faults and all damages loss and expense consequent thereon or incidental thereto shall be made good and borne by the Contractor and such damage, loss or expense shall be recoverable from him by the Owner, upon the Owner's certificate together with any expenses the Owner may have incurred in connection therewith.

32. **Possession, completion and postponement**

On the date for commencement stated in the appendix to these conditions possession of the premises and buildings shall be given to the Contractor by the Owner who shall thereupon begin the works regularly and, diligently proceed with the same, and who shall perform the Work within the duration of contract.

The Owner shall issue instructions in regard to the commencement of any work to be executed under the provisions of this Contract.

Acceptance, Deficient Service and Rejection

a) Acceptance

One month before the expiry of this contract, the Contractor shall submit the following documentations :

- Complete set of altered drawings if any including reproducible copies /soft copies in CD's of Contractor's drawings applicable.
- Complete set of as-built drawings & Manuals (issued to Contractor at the beginning of contract) incorporating new additions / changes if any.

Then Contractor shall be entitled to request the Owner to carry out an examination of the services and the operating conditions of the facilities. The Completion Certificate shall then be issued by Owner, provided such examination was satisfactory to Owner/P&FM subject to the signing of the Release Letter by Contractor as per the format approved by the Owner.

b) Deficient Services and Rejection

If at any time before issue of the completion certificate there becomes apparent any failure of the services or part thereof to conform to the warranties or any other defect or deficiency in the services for which Contractor shall be responsible, Contractor shall upon receipt of written notice from Owner and at his own expense promptly remedy the same by, at Owner's option, repair or replacement. Deficient services shall also include Contractor's failure to respond with diligence and despatch.

Even if Contractor shall fail to promptly effect the required remedy then Owner shall be entitled to reject the part of the services affected and to replace the same at Contractor's expense.

If Owner does not exercise its rights under the immediately preceding paragraph within a reasonable time, Contractor shall not be relieved from liability in respect of the relevant non-conformity or other defect or deficiency but his full and complete responsibility shall be limited to the repayment of all monies paid by Owner to him in respect of the part of the services affected thereby.

Contractor shall, if required by Owner, search for the cause of any malfunction, defect or deficiency in the services and, if the same shall be found to be within the scope of Contractor's remedial responsibility as aforesaid, the cost of the services carried out by Contractor in searching shall be borne by Contractor.

Contractor's failure to perform any of his obligations under this Sub-article shall (without prejudice to any other rights which Owner shall have in the matter) result in Owner making demand under the performance Bank Guarantee and / or any monies in its possession.

33. Liquidated Damages (not as penalty) for non-performance

If Contractor fails to carry out the services in strict conformity with the approved and accepted schedule, then unless such failure is due to Force Majeure, the Contractor shall pay to Owner as liquidated damages (not as penalty) an amount equal to one day's O & M charges that failed for each day delay plus the expenses and charges incurred by the Owner in rectifying and performing the defaulted service, whether by its own means or by third parties. The Contractor agrees that the amount prescribed is a genuine pre-estimate of losses that will be suffered by the Owner.

For delay and / or unsatisfactory performance of the services, covered under this Contract, Owner has the right to claim and charge liquidated damages (not as penalty) to contractor for its failure in the mobilisation or performance of the services as under:

Owner shall at the beginning of every month assess the work performance of Contractor during the previous month. For any shortfalls observed in the work performance due to any reasons whatsoever, Owner shall evaluate the Man power, equipment, tools and vehicles that would have been required to accomplish the work performance and calculate the deduction amount in terms of Man power, Equipment, Tools and Vehicles mobilisation. In any case the minimum amount to be deducted will not be less than one day's O & M charges of the corresponding item of the contract.

Normally services will have to be completed by Contractor as per the work completion programme notified by Owner representative. Contractor shall attend any urgent services immediately. In case of failure to attend to such services immediately, then Owner Representative shall have the right to deduct for the damages at an amount equal to one day's O & M charges per day of delay of the particular package until rectification and restoration of service plus the cost of the job to be completed by Owner through a third party. Contractor shall be informed of the damages and the action taken accordingly. The damages claimed by Owner are not subject to negotiation by Contractor.

Owner shall have the right without prejudice to any other method of recovery to deduct the amount of such damages from any monies due or which may become due to Contractor. All liquidated damages clauses shall have no upper limit of deductions for Contract.

The payment or deduction of such damages shall not relieve Contractor from his obligations to complete the services or from any of his other obligations and liabilities under this Agreement.

The period of failure to carry out and all matters of delay, unsatisfactory performance of the services mentioned in several clauses above shall be as determined and judged by the Owner whose decision shall be final and binding on the Contractor.

- 33(a) **Contract sum** : In consideration of performing the services in full conformity with the contract, Owner shall pay to the Contractor the contract sum as specified in the bill of quantities in the manner set forth in sub articles below in full and final remuneration.
- 33(b) **Payment** : Payment for the contract will be made to the contractor after checking and certification by the P & FM.
- 33(c) **Invoicing** : The Contractor shall submit to the Owner detailed invoices in respect of the services performed at the end of each quarter in arrears. The invoice shall be submitted in one (1) original, clearly stamped "Original" and another one copy as duplicate. The invoices shall,-
- i bear reference to this agreement;
 - ii be supported by all documentation with proof of statutory payment details (PF, ESI, Insurance, Payment of Wages, Manpower deployment, etc) to enable Owner / P & F Manager to review and accept. The Contractor shall maintain and submit wage records, work commencement / completion certificate, etc for bill clearance. The Contractor should submit attendance / salary disbursement register for the workmen engaged by the 25th day of the subsequent month. The Contractor shall, whenever required by the Owner or any governmental authority authorised under the statutes, produced for inspection all forms, registers and other documents, required to be maintained under various statutes."
 - iii Clearly state the reason for which the payments are required.

Payment shall be made to the Contractor at quarterly intervals in arrears. Upon receipt of each invoice, the P & FM shall review it and if deemed to be in accordance with the agreement, the P & FM shall approve the said invoice and the payment shall be to the Contractor within fourteen (14) days from the receipt of correct invoice by the Owner subject to the bills being in the complete shape and in the accepted format. Without waiver or limitation of any of its rights under the contract or at law, the Owner shall be entitled to deduct from any monies due to the Contractor under the contract any and all amounts of any debt due from the Contractor to the Owner. However, all payments under the contract shall be made only after the receipt of the performance bank guarantee required under this contract.

34. **Financial Entitlements and Payments**

34.1 **Contract Price**

In consideration of performing the SERVICES in full conformity with the Contract, OWNER shall pay to CONTRACTOR the CONTRACT PRICE as specified in Schedule of Quantities in the manner set forth in sub-articles below as full and final remuneration.

34.2 Full Payment

In consideration of performing the services in full conformity with the contract, Owner shall pay to the Contractor the contract price as specified in the schedule of quantities in the manner set forth in sub articles below as full and final remuneration and the,

Contractor agrees to accept the CONTRACT PRICE as a full and final remuneration for performing all its obligations under this Contract (including variations, which shall be valued in accordance with clause 26) and for bearing all risks of every description and all expenses in connection herewith.

The contract rates shall remain fixed for the entire duration of the Contract.

Payment for the Operation and Comprehensive Maintenance of this work will be made directly in the name of contractor through P&FM as per the agreement with the Owner, after getting certification for the performance towards this work from the P&FM agency.

34.3 Invoicing

The Contractor shall submit to Owner detailed invoices in respect of the services performed at the end of each quarter in arrears. The invoices shall be submitted in one (1) original, clearly stamped "Original" and another one copy as duplicate. The invoices shall;

- bear reference to this Contract
- be supported by all necessary documentation with proof of statutory payment details (PF,ESI,INSURANCE etc) , man power list deployed to enable Owner / P&FM to review and accept them.
- clearly state the reason for which payments are required.

34.4 Payment

- a) Payment shall be made to Contractor in equal quarterly installments in arrears on the basis of performance of his Services. Owner shall have the sole authority to judge the performance of Services.

The payment shall be as below:

For Contractor Services:

Quarterly bills

- i) Payments as per schedule of quantities will be made directly by Owner, upon receiving certificate from P&FM at quarterly intervals in arrears.
- b) Upon receipt of each invoice, Owner / P&FM shall review it and if deemed to be in accordance with the Agreement, Owner shall approve said invoice and payment shall be made to Contractor within fourteen (14) days from the receipt of correct invoice by Owner subject to bills being in complete shape with all necessary support documentation and in the accepted format.

- c) The payment procedure referred to in this Sub-article shall apply mutatis mutandis to the payment of such amounts as they become due to Contractor as a result of other terms of this Agreement.
- d) Without waiver or limitation of any of its rights under the Agreement or by law, Owner shall be entitled to deduct from any monies due to Contractor under the Agreement any and all amounts of any debt due from Contractor to Owner.
- e) No payment shall be made by Owner until receipt of all the Bank Guarantees required under this contract.
- f) All invoices shall be presented and shall be payable in Indian Currency only.

35. Insurance

- i) The Contractor shall be responsible for all injury or damage to persons, animals or things, and for all damage to property which may arise from any negligent act or omission on the part of the Contractor or any sub-Contractor employed by them or any of their employees.
- ii) The liability under this clause shall cover also, inter alia, any damage to structures, whether immediately adjacent to the works or otherwise, any damage to roads, streets, footpaths, bridges as well as damage caused to the buildings and other structures and works forming the subject matter of this contract. The Contractor shall also be responsible for any damage caused to the buildings and other structures and works forming the subject matter of this contract due to rain, wind, frost or other inclemency of weather.
- iii) The Contractor shall indemnify and keep indemnified the Employer and hold him harmless in respect of all and any loss and expenses arising from any such injury or damage to persons or property as aforesaid and also against any claim made in respect of injury or damage, whether under any statute or otherwise and also in respect of any award or compensation or damage consequent upon such claim.
- iv) The Contractor shall reinstate all damage of every sort mentioned in this clause so as to deliver up the whole of the works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to property of third parties.
- v) The Contractor shall also indemnify and keep indemnified the Employer against all claims which may be made against the Employer, by any person in respect of anything which may arise in respect of the works or in consequence thereof and shall, at his own expense, effect and maintain, until the completion of the contract, with an Insurance Company approved by the Employer a policy of Insurance in the joint names of the Employer and the Contractor (name of the former being placed first in the policy) against such risks and deposit such policy or policies before commencement of the works. The minimum limit of the coverage under the Policy shall be Rs.5 lakhs for every accident or occurrence, there being no limit on the number of such accidents or occurrences.

- vi) The Contractor shall also indemnify the employer against all which may be 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 of any Sub-Contractor and shall at his own expense effect and maintain until the completion of the contract, with an insurance Company, approved by the Employer, a Policy of Insurance against such risks (with a limit of liability of not less than Rs 2.00 (two) lakhs per occurrence) and deposit such policy or policies with the Employer from time to time during the currency of this contract.
- vii) In default of the Contractor insuring as provided above, the Employer may so insure and may deduct the premiums paid from any moneys due or which may become due to the Contractor.
- viii) The Contractor shall be responsible for any liability which may not be covered by the Insurance Policies referred to above and also for all other damages to any person, animal or defective carrying out of this contract, whatever, may be the reasons due to which the damage shall have been caused.
- ix) The Contractor shall also indemnify and keep indemnified the Employer against all and any cost, charges or expenses arising out of any claim or proceedings relating to the works and also in respect of any award of damages or compensation arising therefrom.
- x) Without prejudice to the other rights of the Employer against Contractor in respect of such default, the Employer shall be entitled to deduct from any sums payable to the Contractor the amount of any damages, compensation costs, charges and other expenses paid by the Employer and which are payable by the Contractor under this clause.
- xi) The Contractor shall, upon settlement by the Insurer of any claim made against the Insurer pursuant to a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the monies received from the Insurer in respect of such damage shall be paid to the Contractor and the Contractor shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.
- xii) The Contractors, in case of re-building or reinstatement after fire, shall be entitled to such extension of time for completion as the Owner / P&FM may deem fit, but shall, however, not be entitled to reimbursement by the Employer of any shortfall or deficiency in the amount finally paid by the insurer in settlement of any claim arising as set out herein.
- xiii) Without prejudice to his liability under this clause, the Contractor shall also cause all sub-Contractors to effect, for their respective portions of the works, similar policies of insurance in accordance with the provisions of this clause and shall produce or cause to produce to the employer such policies. The Contractor shall not permit a sub-Contractor to commence work at the site unless the said insurance policies are submitted. In the event of failure of the sub-Contractor to take out such a policy of insurance before commencing the works at the site, the Contractor shall be

responsible for any claim or damage attributable to the said sub-Contractor.

Contractor shall, prior to the commencement of any site activity submit the Insurance Confirmation Letter – Annexure “G” regarding the required Insurance Policies to be put in place by Contractor. Owner reserves the right to examine the policy wording and require evidence that the Policy Premium has been paid to the Insurers, and that it shall remain in force, throughout the duration of the Contract.

All deductions or liabilities in excess of the indemnities provided under the insurance arranged by Contractor / Sub-contractor and / or Owner shall be for the account of and paid by Contractor and his Sub-contractors.

Approval by Owner of any insurer or terms of insurance proposed Contractor shall not relieve Contractor from any of its obligations liabilities under or arising from this Contract or generally by law.

Owner shall not accept any responsibility whatsoever for any loss of or damage to any property or personal effects belonging to Contractor’s employees or to those of Sub-contractors employed by them.

In the case of Owners own insurance cover of their assets including installation of equipment and movable & unmovable fixtures thereto, the Contractor / or Sub-contractors shall notify Insurers and Owner within fifteen (15) days of any occurrence likely to give rise to a claim under Owner’s insurance and shall handle all claims negotiations and submit relevant supporting documents to owner in co-ordination with P&FM for final settlement to be effected to Owner’s account. Subsequently Contractor and / or Sub-contractors shall be reimbursed by Owner for the claim amount due, as the case shall be.

Determination by the Owner

36. Default:

If the Contractor shall make default in any one or more of the following respects, that is to say: -

If he without reasonable cause wholly suspends the carrying out of the works before completion thereof, or If he fails to proceed regularly and diligently with the works, or If he refuses or persistently neglects to comply with a written notice from the Owner requiring him to remove defective work or improper materials or goods and by such refusal or neglect the work is materially affected, or

If he fails to comply with the provision of clause 23 conditions of contract.

Then the Owner may give him the notice by registered post or recorded delivery specifying the default, and if the Contractor either shall continue such a default for 14 days after receipt of such a notice and shall at any time thereafter repeat such a default (whether previously repeated or not), then the Owner without prejudice to any other rights or remedies may within 10 days after such continuance or repetition of default by notice by registered post or recorded delivery forthwith determine the employment of the Contractor under this Contract, provided that such notice shall not be given unreasonably or vexatiously.

Bankruptcy of Contractor:

In the event of the Contractor becoming bankrupt or making a composition or arrangement with his creditors or being a company having a winding up order made or (except for purposes or reconstruction) a resolution for voluntary winding up passed or a receiver or manager of his business or undertaking duly appointed or possession taken by or on behalf of the holders of any debentures secured by a floating charge, of any property comprised in or subject to the floating charge, the employment of the Contractor under this Contract shall be forthwith automatically determined but the said employment may be reinstated and continued if the Owner and the Contractor, his trustee in bankruptcy, liquidator, receiver or manager as the case may be shall so agree.

The Owner shall be entitled to determine the employment of the Contractor under this Contract, if the Contractor shall have offered or given or agreed to give to any person any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any action in relation to the obtaining or execution of this Contract with the Owner, or for showing or forbearing to show favour or disfavour to any person in relation to this Contract or any other Contract with the Owner, or if the like acts shall have been done by any person employed by the Contractor or acting on his behalf (whether with or without the knowledge of the Contractor), or if in relation to this Contract or any other Contract with the Owner the Contractor or any person employed by him or acting on his behalf shall have committed any offence under the prevention of corruption act, or shall have given any fee or reward the receipt of which is an offence under the Local Government Act.

In the event of the employment of the Contractor being determined as aforesaid and so long as it has not been reinstated and continued, the following shall be the respective rights and duties of the Owner and Contractor.

The Owner may employ and pay other persons / agencies to carry out and complete the works and he or they may enter upon the Works and use all temporary buildings, plant, machinery, appliances, goods and materials intended for, delivered to and placed on or adjacent to the works and may purchase all materials and goods necessary for the carrying out the completion of the Works.

The Contractor shall if so required by the Owner within 14 days of the date of determination assign to the Owner without payment the benefit of any Agreement for the supply of materials or goods and/or for the execution of any works for the purposes of this Contract but on the terms that a supplier or Sub-Contractor shall be entitled to make any reasonable objection to any further assignment thereof by the Owner. In any case the Owner may pay any supplier or Sub-Contractor for any materials or goods delivered or Works executed for the purpose of the Contract (whether before or after the date of determination), in so far as the price thereof has not already been paid by the Contractor. The Owner's rights under this paragraph are in addition to his rights to pay nominated Sub-Contractors under this paragraph and all such payments may be deducted from any sum due or to become due to the Contractor.

The Contractor shall as and when required in writing by the Owner so to do (but not before) remove from the works any temporary buildings, plant, tool, equipment, goods and materials belonging to or hired by him. If within a reasonable time after any such requirements has been made the Contractor, has not complied therewith then the Owner may (but without being responsible for any loss or damage)

remove and sell any such property of the Contractor, holding the proceeds less all costs incurred to the credit of the Contractor.

The Contractor shall allow or pay to the Owner in the manner hereinafter appearing the amount of any direct loss and/or damage caused to the Owner by the determination. Until after completion of the works under this Clause the Owner shall not be bound by any provisions of this Contract to make any further payment to the Contractor, but upon such completion and the verification within a reasonable time of the accounts therefor the Owner shall certify the amount of expense properly incurred by the Owner and the amount of any direct loss and/or damage caused to the Owner by the determination and if such amounts when added to the monies paid to the Contractor before the date of determination exceed the total amount which would have been payable on due completion in accordance with this Contract, the difference shall be a debt payable to the Owner by the Contractor and if the said amounts, when added to the said monies be less than the said total amount, the difference shall be a debt payable by the Owner to the Contractor.

37. Determination by the Contractor

Without prejudice to any other rights and remedies which the Contractor may possess, if

The Owner does not pay to the Contractor the amount due on any certificate within the period for Honouring Certificates named in the appendix to these Conditions and continues such default for 10 (ten) days after receipt by registered post or recorded delivery of a notice from the Contractor stating that notice of determination under this condition will be served if payment is not made within seven days from receipt thereof; Or The Owner interferes with or obstructs the issue of any certificate due under this Contract.

Force majeure, or Loss or damage occasioned by any one or more of the contingencies referred to in clause 35 of these conditions (if applicable) Or Civil commotion, Or Owner's instructions issued under clauses 5, 26 or 32 of these conditions, Or The Contractor not having received in due time necessary instructions, details from the Owner for which he specifically applied in writing on a date which having regard to the date of completion stated in the appendix to these Conditions Or Delay on the part of Artists, Tradesmen or others engaged by the Owner in executing work not forming part of this Contract, or The opening up for inspection of any work covered up or of the testing of any of the work materials or goods in accordance with clause 30 of these Conditions (including making good in consequence of such opening up or testing) unless the inspection or test showed that the work materials or goods were not in accordance with this Contract.

Then Contractor may thereupon by notice by registered post or recorded delivery to the Owner forthwith determine the employment of the Contractor under this Contract; provided to such notice shall not be given unreasonably or vexatiously.

Upon such determination, then without prejudice to the accrued rights or remedies of either party or to any liability of the classes mentioned in any of these Conditions which may accrue either before the Contractor or any Sub-Contractor shall have removed his or their temporary buildings, plant, machinery, appliances, goods or materials or by reason of his or their so removing the same, the respective rights and liabilities of the Contractor and the Owner shall be as follows that is to say:

The Contractor shall with all reasonable diligence dispatch in such manner and with such precautions as will prevent injury, death or damage of the classes in respect for which before the date of determination he was liable to indemnify the Owner under any of these Conditions remove from site all his temporary buildings, plant, machinery, appliances, goods and materials and shall give facilities for his Sub-Contractors to do the same but subject always to the provisions of this clause.

After taking into account amounts previously paid under this Contract, the Owner shall pay the Contractor:

The total value of the works completed at the date of determination.

The total value of work begun and executed but not completed at the date of determination the value being ascertained mutatis mutandis in accordance with clause 34 of these Conditions.

The cost of materials or goods properly ordered for the works for which the Contractor shall have paid or of which the Contractor is legally bound to pay, and on such payment by the Owner materials or goods so paid for shall become the property of the Owner.

38. Co-ordination of Work

The co-ordination procedure defining the practical interface between Owner/P&FM and Contractor is set out in Annexure – “E”. For the purpose of the Project, Contractor shall at all times observe the provisions of the said co-ordination procedure.

39. Labour

The Contractor shall employ no child labour under 18 years of age on the work. If female labour is engaged the Contractor shall make necessary provision for safeguarding small children and keeping them clear of the site of operations. No labourer shall reside within the compound except authorised guards. Labour act issued by the state/central government from time to time has to be followed scrupulously.

The labour (O&M incharge, technicians – full time and part time) indicated in the contract is an essential term of contract. The owner/P&FM shall be entitled at all times to inspect or calculate the actual manpower deployed in Tidel Park. If during such inspection or calculation, the Owner or P&FM discovers that the agreed minimum manpower has not been deployed, then the Owner shall be entitled to deduct proportionate amount from the lumpsum quoted for the deployment of the manpower. This right of the Owner shall be without prejudice to any other right of the Owner available under this Contract on such matters.

40. Protection of trees and shrubs

Trees and Shrubs designated by the Owner shall be protected from damage during the course of the work and the earth level shall not be changed within three feet of such trees. Where necessary such trees and shrubs shall be protected by means of temporary fencing.

41. **Guarantee**

Besides guarantees required elsewhere, the Contractor shall guarantee the work in general as noted under clause 30 of these Conditions.

The Contractor shall submit all required guarantees to the Owner when requesting certification of accounts for payment by the Owner.

42. **Antiquities**

All fossils and other objects of interest or value, which may be found at the site or in excavating the same during the progress of the work, shall become the property of the Owner. The Contractor shall carefully take out and preserve all such objects and shall immediately or as soon as conveniently may be after the discovery of such articles deliver the same into the possession of the Owner un-cleaned and as excavated.

43. **Disputes :**

“Arbitration”

On any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this Contract or the validity or the breach thereof, the parties shall first endeavour to settle the same amicably in a spirit of co-operation. If the dispute cannot be amicably settled either party shall, as soon as practicable, but not earlier than 3 months give to the other party notice in writing of the existence of such dispute or difference, specifying the nature and the point at issue and the same shall be settled by Arbitration in accordance with the Arbitration and Conciliation Act, 1996 as amended from time to time. The dispute or difference shall be referred to the Sole Arbitration of the Managing Director of Tidel Park or his nominee including any officer of Tidel Park nominated by him and the contractor shall not raise an objection to such Arbitration on the ground that the Arbitrator is an officer of Tidel Park and as such is an interested party or that the Arbitrator so appointed has earlier dealt with the subject matter of this Agreement”.

“Except as above, all matters arising under this agreement shall be subject to the exclusive jurisdiction of the Courts at Chennai only”

44. **Protection and cleaning**

The Contractor shall protect and preserve the work from all damage or accident by providing any temporary coverings, boxing or other construction as required by the Owner. This protection shall be provided for all property adjacent to the site as well as on the site.

Place:

Date:

Signature of the Tenderer / Contractor
With seal

APPENDIX
**SUMMARY OF GENERAL INSTRUCTIONS & NOTICE INVITING TENDER AND
CONDITION OF CONTRACT**

1. Date of commencement of work : 01.01.2012
2. Period of Contract : 3 Years from the date of commencement.
3. Liquidated Damages (not as penalty) : Refer Clause 33 of Conditions of contract.
The period of failure to carry out, delay and / or unsatisfactory performance of the service and such other matters etc. shall be as assessed and determined by the Owner which is final and binding on the Contractor.
4. Earnest Money Deposit : Rs. 40,000/-(Rupees Forty Thousand only) in Indian currency in the form of crossed demand draft drawn on any nationalized/scheduled bank in favour of TIDEL Park Ltd payable at Chennai.
5. Performance Bond : An amount equivalent to 10% of the highest annual contract value in the form of Bank guarantee from any nationalized/scheduled bank located in Chennai valid for the contract period plus six months.
6. Interim Payments : By submission of quarterly bill at the end of every quarter in arrears.
7. Payment of bills by the Owner : Payment shall be within 14 days from the date of receipt of correct invoice by Owner
8. Period of Final Payment : 3 months after completion of the contract.
9. Rate of Interest for Delayed Payment : Nil
10. Escalation : No Escalation

Place :

Date Signature of the Tenderer/Contractor

SPECIAL CONDITIONS

1.0 Material Acceptance

- 1.1 Contractor shall not procure any material for use in services unless he shall take prior approval from the Owner. Contractor shall present specifications of materials to be used in works for Owner's approval before placing the order.

2.0 Inspection by Owner

Owner's representative shall inspect Contractor's work at each stage, and shall either accept or reject the same. The rejected work shall be rectified by Contractor, entirely at his own cost and to the entire satisfaction of Owner.

- 3.0 The Contractor shall be responsible for all regular, preventive and breakdown maintenance of all equipment under the scope of their contract. In case replacement of equipment / parts are required, they shall be replaced by the contractor as per the conditions.

- 3.1 Diesel and lubricant used as consumables for Diesel engine driven pumps shall be borne by Owner.

- 3.2 comprehensive Operation and Comprehensive Maintenance includes spares in the scope of Contractor up to the end of the contract period. The end of the contract period is stated elsewhere.

- 3.3 **Other Consumables etc** – Replacement of filters, Batteries, etc in the scope of contractor. The other consumables like grease, cotton waste etc. also to be provided by contractor.

- 3.4 **Spares** – The Contractor has to maintain minimum spares as per the conditions and the list of spares in the **Annexure – 'I'**, in this document up to their contract period. The details of overall spare parts management to be done by the contractor at site is explained in the same **Annexure – 'I'**. Contractor shall procure, store, keep accounts of, protect, codify etc. of all such spares. Within the period of the O&M Contract, whenever spares get utilised, Contractor shall ensure that they replenish the used stocks immediately, except in exceptional cases, the time period will be fixed in prior consultation with the Owner. All types of consumables are in the scope of contractor.

Machinery Break down (MBD) - The contractor has to bear the premium amount of the MBD policies insured by TIDEL for the entire contract period on annual basis. The details of items covered, sum insured, premium, conditions of insurance company, claim settlement procedure, method of recovery of premium amount from the contractor, responsibility of the contractor towards the insurance claim. etc. is furnished in the **Annexure 'J'**.

4.0 Temporary Works

- 4.1 Contractor shall carry out all temporary works with prior approval necessary for the completion of services and shall remove them and clear the area as soon as the services are complete and keep the removed materials, accounting the same and should be properly stored as directed by owner.

5.0 **Restricted Area**

- 5.1 Contractor shall fully recognise that the site shall be a restricted area and that all works and movement within it shall be subjected to the Owners / P & FM direction and control.

6.0 **Hazardous Area**

- 6.1 The work area in and around the Operating Units such as Service building, Fuel Storage Tank, LPG bank (meant for food court) Double Alkali F.G.D System, Electrical Shafts, electrical cable/communication cable/waterline trenches etc. etc. shall be considered a hazardous area. Contractor shall fully familiarise himself and abide by with the safety rules / regulations and fulfillment of ISO standards. If Contractor shall experience unavoidable interruption of work due to operational or safety reasons, such delays / interruptions shall not entitle Contractor to reimbursement of additional costs.

7.0 **Superintendence**

- 7.1 Contractor shall give or provide all necessary superintendence as necessary for the proper fulfilling of Contractor's obligations under this Contract.

8.0 **Progress of Services**

- 8.1 Contractor shall submit to Owner, a daily Progress Report detailing the accomplishments of the previous day in line with the Master Maintenance Schedule and breakdown details and the remedial action taken and proposed if the services shall be lagging behind schedule. Access to Contractors works shall be granted to Owner or its representative at any time for the purpose of ascertaining progress.

9.0 **Scaffolding**

- 9.1 If scaffolding shall be required for safe performance of the work, Contractor shall erect the same using his own standard steel scaffolding materials. The use of wooden scaffolding shall not be permitted. Contractor shall ensure that the scaffolding shall be erected in such a manner so as not to interfere with other activities in the area.

10.0 **Test Areas for Inspection**

- 10.1 In order to facilitate the determination of inspection procedures Contractor shall if so instructed by the Owner prepare to predetermined standards tests and sample areas. This work shall be deemed to be included in Contractors contract prices for the services.

11.0 **Cleaning Up**

- 11.1 Contractor shall maintain a high standard of house keeping around the entire premises and shall provide any covers, screens etc. necessary to protect adjoining areas not affected by the works.

Contractor shall, at all time, keep the working area including adjoining premises, in a neat, clean and safe condition. Upon completion of any portion of the works, Contractor shall promptly remove all his equipment, construction plant, temporary works and surplus materials not to be used at or near the same location during later stages of services.

12.0 **Working Hours**

12.1 The premises is subject to continuous occupation of all the 24 hours of a day.

13.0 **Adequacy of Contractor's Staff**

13.1 It is understood that the service activities are to be performed with utmost diligence and expediency so as to minimise plant or equipment down time. To achieve this, Contractor shall maintain the adequate level of staff, not less than the minimum list of man power furnished in Annexure 'C' with the indicated qualification, experience and good competence at site at all times.

13.2 If, at any time, during the currency of the Contract, Contractor's staffing, in the opinion of Owner, is inadequate to meet the requirements of Contract services, Owner may so notify Contractor, who shall thereupon take immediate steps to increase its staff at site. Contractor shall effect such increases within a period of maximum Seven Days following the procedure outlined elsewhere in the contract agreement. If within the specified period Contractor does not or fails to increase the staff as required, Owner may itself or through other parties / agencies hire additional staff to supplement that of Contractor at the cost fixed by the owner to be recovered from the payment of Contractor.

13.3 Failure of Contractor to comply with the instructions of Owner may be grounds for determination by Owner that Contractor is not proceeding with the performance of services with due diligence to ensure fulfillment of contractual requirements.

14.0 **Conditions of Performance**

14.1 Contractor conforms and assures that:

14.1.1 Contractor has the requisite skilled and qualified personnel to perform the services.

14.1.2 Contractor has inspected the premises and is familiar with the conditions related to performance of the services.

14.1.3. Contractor shall at all times ensure that the supply of know-how, Manpower, Materials, Equipment, Tools and Vehicles shall be adequate to satisfactorily undertake the scope of services without delay.

14.1.4. Contractor shall at all times ensure that the services are being carried out in the most expeditious efficient manner consistent with the best interests of Owner, and in good and professional manner and in accordance with sound industry practice.

14.1.5. Contractor shall perform and provide the services in accordance with provisions of this Contract and shall exercise all reasonable skill, care diligence and judgement in performance of the services.

14.2 Owner has discussed and agreed with Contractor as per the Contract, the general basis for execution of services, Contractor shall provide procedures for Owner approval in accordance with Annexure "E" which shall be based upon good engineering practice in order to maintain the equipment at a high level of efficiency and to provide safe working conditions. If any question arises between Contractor and Owner regarding particular work procedure followed or proposed

to be followed by Contractor, Contractor must justify to Owner the soundness of such procedure and shall obtain Owner's written approval before the same may be effected. Provision or otherwise of such approval shall not relieve Contractor of any of its obligations under this Contract.

Owner shall have the right to check and make remarks on any or all procedures proposed to be adopted by Contractor for the performance of services. Contractor shall submit such work procedure for Owner's review and approval.

14.3 Contractor shall notify the Owner as soon as Contractor knows of any difficulty in performing the services. If, at any time during the performance of the services, Contractor's actual progress is inadequate to meet the requirements of the Contract, Owner may so notify Contractor who shall thereupon take such steps as may be necessary to improve it's the performance. If Contractor does not improve the performance to meet the approved and accepted schedule, Owner may require an increase in overtime working hours, an increase in the number of Manpower and Equipment, Plant, tools etc. all without any additional payment by Owner to Contractor. Neither such notice by Owner nor Owner's failure to issue such notice shall relieve Contractor of its obligations to achieve the performance required by Contract.

14.4 If Contractor fails to perform any of the services then Owner has the undisputable right to claim damages and hire a third party to perform such services, and the incurred amount i.e. the additional amount payable to the third party by virtue of assigning services until expiry date of Contract shall be recovered from any monies due to Contractor under the Contract.

14.5 In the event that Contractor fails to progress the services in accordance with the accepted Schedule of work and thereby incurs Owner in additional cost and / or expense through the re-organisation and / or re-scheduling of dependant third party claims in consequence thereof, then to the extent that Contractor is at fault, Contractor shall reimburse all such direct and verifiable costs and expenses to Owner and Owner may deduct such sums from the value of any invoice submitted by Contractor or from any sums due or owing or which may become due or owing to Contractor.

15.0 Variations

15.1 Additional and modification works shall be subject to the provisions made under this contract Agreement.

15.2 Additional and modification works related to scope of services.

15.2.1 Owner may frequently have some additional works, modifications etc at site related to the Scope of Services to be carried out. Owner has the right to make use of Manpower, materials, Equipment, Tools & Vehicles made available at site by the Contractor, for carrying out the additional services. Contractor shall carry out such additional works without any additional charges to Owner. However the cost of materials required for such works shall be paid as per the provision under this contract.

15.2.2 Owner has the right to waive the charges of damages due to routine programme performance shortfalls observed of Contractor by Owner during that period for using its Manpower, materials, Equipment, Tools and Vehicles for carrying out the additional works.

16.0 **Title**

16.1 Title to goods furnished by Contractor under this Agreement shall pass to Owner on the date of receipt of the goods by Owner.

Materials and operating equipment of any kind left over or meant to be left over during and after completion of services, as well as maintenance special tools and erection equipment, temporary structure forms supplied and any other incidental items not forming part of the services, if furnished by Contractor, shall remain the property of Contractor, as the case may be, and shall be removed by Contractor prior to or upon completion of services except for such equipment required for test run, which shall be removed within seven (7) days of completion of services or any reasonable period.

16.2 **Title to Material Found:** The title to water, soil, rock, gravel, sand, minerals, timber and any other materials developed or obtained in the excavation or other operations of Contractor in areas in or over or concerning which Owner has any rights and the right to use said items in performing the services or dispose of same, is hereby expressly reserved by Owner. Neither Contractor nor any of its Representatives or employees shall have any right, title or interest in said materials, nor shall they assert or make have any right, title or interest in said materials, nor shall they assert or make any claim thereof. Contractor will, as determined by Owner, be permitted to use in the services without charge any such materials which meet the requirements of the Agreement, provided Owner shall have the right to use or consume these materials without payment to a third party.

17.0 **Drawings and Information**

17.1 Owner shall upon written request provide to Contractor copies of any or all available drawings, documents or information related to installations / Plant / Equipment / Buildings and required by Contractor for performance of services under Contract. The number of copies of any one document, drawing, etc. requested by Contractor shall have to be justified by Contractor as essential for performance of the services. In case of any disagreement on this matter, Owner's determination shall be final. All drawings, documents, information provided by Owner to Contractor hereunder shall remain the exclusive property of Owner. These informations/materials should not be given/revealed partly or fully or in any other form to any other agency (ies)/individuals at any cost and shall be returned back to Owner on demand or on expiry of Contract.

17.2 Owner shall have the right to supply to Contractor from time to time, during the pendency of Contract, such further drawings, procedures and instructions as shall be necessary for the purpose of the proper and adequate execution of the services. Contractor shall carry out and be bound by the same.

17.3 Owner shall provide to Contractor, on request, available copies of drawings of various equipment, systems and their layouts. Should Contractor require additional drawings, forms, charts etc. other than those available in Owner archives to assist Contractor, its supervisors and workers to elucidate the work to be performed on any of the services or to control, organise and expedite such work, then such drawings etc. shall be prepared by Contractor at no extra cost to Owner and subject to provisions herein. Copies of all such drawings, proformas, charts etc. prepared shall be submitted to Owner. Owner may make comments and observations on such drawings, proformas, charts etc. and may require changes, alterations, modifications or revisions to be made in these in-so-far as Owner deems that such changes, etc. are necessary to present true conditions or

to further facilitate work performance. Such changes when made shall not relieve Contractor of any of its obligations under this Contract.

- 17.4 It shall be the duty of Contractor to ensure that the drawings and documents provided by Owner to Contractor are the latest revisions. Failure to do so shall be entirely at Contractor's risk and cost.
- 17.5 Whenever Contractor proposes to carry out or carries out any work which would entail revisions to be made in any of Owner's drawings and documents, then Contractor shall advise Owner accordingly describing in detail the revisions to be made after approval from owner and shall incorporate all such revisions and provide copies of revised drawings to owner without any additional cost.

18.0 Labour

- 18.1 Contractor shall be responsible for the engagement, employment, transport, working and living conditions of personnel and in respect of all matters connected therewith. Contractor shall at all times during the continuance of this Contract conform in all respects to and carry out all obligations imposed on it by the provisions and requirements of the Employees Provident Fund (Miscellaneous Provisions) Act, 1952, Payment of Gratuity Act, 1952, Employment State Insurance Act, 1948, Maternity Benefit Act, 1961, Minimum Wages Act, 1923, Equal Remuneration Act, 1976, Payment of Wages Act, 1936, Payment of Bonus Act, 1965, Contract Labour (Regulation and Abolition) Act, 1971 and any applicable law in the country where any of the services are performed or regulations issued including without limitation all laws, regulations and requirements of Government of India.

All the proposed staff / personnel shall possess high standard of Integrity, have no affiliation with any political parties or trade unions. The contractor should submit the antecedents of their employees with police clearance at the time of execution of agreement. This has to be followed during the entire contract period.

- 18.2 Contractor shall in its dealing with the personnel for the time being employed on or in connection with the Agreement have due regard to all recognised festivals. Contractor shall also observe all relevant local customs and such other conditions and instructions as may be issued to Contractor from time to time by Owner.
- 18.3 Contractor shall administer any National Labour on employment on terms and conditions not less favourable than those established for equivalent sites or locations within India.
- 18.4 Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst its employees and for the preservation of peace and protection of persons and property in the neighbourhood of the site against the same.
- 18.5 Upon the outbreak of any strike or labour dispute involving any of Contractor's personnel engaged on the services, Contractor shall forthwith give details thereof to Owner. If any dispute arises between the contract labour/labour/employees and Contractor agency, the owner will not be responsible in any manner. The Contractor shall not stop or cause stoppage of work on account of strike or other agitation during the period of contract. The Contractor agrees that it shall be liable for all consequences for the delay caused or loss/damages suffered by the Owner due to the stoppage/strike by the Contractor. Tidel shall recover the cost incurred due to this from the Contractor's running account bills.

- 18.6 Contractor shall within twenty four (24) hours of any occurrence of any accident at or about the site or in connection with the execution of the services or any injury, loss or damage to any personnel or to property of Contractor, Owner or of a third party, report such occurrence to the competent authority whenever such a report is required by law.
- 18.7 Contractor shall, to the extent permissible under applicable laws, comply with and be bound by such terms and conditions of any labour agreement established by Owner and applicable to the services of the personnel appointed in India.
- 18.8 Contractor shall be responsible for the observance of all provisions of this Article by any Sub-contractor employed by it in the execution of this Contract.
- 18.9 Owner shall be at liberty to object to and require Contractor to remove forthwith from the site any person employed by Contractor in or about execution or performance of services who in the opinion of Owner has committed a misconduct or whose employment is otherwise considered to be undesirable. Contractor without the written permission of Owner shall not again employ such person upon services.
- 19.0 **Contractor's Working Hours**
- 19.1 Normal daily working hours for Contractor's personnel, except those working on rotational shift basis will be prepared by Contractor and approved by Owner. Sundays will be observed as weekly rest days except in case of persons who will be working on shift basis. In this contract, the shift pattern shall comply with local regulations governing the engagement of Labour, such as Contract Labour Law, Shop and Establishment Act etc.
- 19.2 Persons working on shift basis will follow the weekly shift schedule to be prepared by Contractor and approved by Owner. Contractor shall arrange to provide at their cost relievers for its Shift Personnel.
- 19.3 Contractor will have to work after normal working hours (as per clause 19.1 above) and on Sundays / Holidays to fulfil its obligation of services. Overtime if any for such work shall be to Contractor's account and deemed to have been included in the rates Quoted.
- 19.4 After normal daily working hours and on Sundays / holidays, Contractor is required to maintain an emergency standby team capable of handling any crises which may arise with materials, Equipment, Tools and Vehicles at site. Further, Contractor is responsible and bound to provide coverage for 24 hours a day throughout the Agreement period to attend to any work of the services with full mobilisation as required at site and as and when directed by Owner's Representative(s) without any extra cost to Owner.
- 19.5 During the festive days, Contractor at no extra cost to Owner shall make such adjustment as necessary to the working arrangement at each location of the premises to meet such exigencies as may be directed by Owner.
- 20.0 **Conflict of Interest**
- 20.1 Contractor shall conduct its operations in a lawful manner consistent with good international practices and standards for such type of services.

20.2 Neither Contractor nor any of its subsidiaries or affiliates shall in connection with the services enter into a contract, give an undertaking, bid, enter into a Joint Venture Partnership, have any relations with a Third Party or any other arrangement to perform any services, to supply goods or equipment which may be to Owner's detriment.

Place:

Date:

Signature of the Tenderer / Contractor
With seal

SPECIAL INSTRUCTIONS

1. The tender shall be of two-bid system, as described elsewhere in the tender document. The submission of tender shall comply with the requirements as detailed in the two-bid-system.
2. The TIDEL Park Ltd. will adopt a comprehensive methodology for evaluating the tenders received for the said works. The Tenderer who submits the lowest bid without any conditions and who conforms to the tender conditions in totality without any deviation and who accepts to complete the said works will be given the highest preference, subject to there being no disproportionately high rates quoted by the lowest Tenderer for any of the items in the Schedule of quantities or in any of the quote rate items only or in the attendance charges payable to the Tenderer under the Contractor packages(if applicable). Where the TIDEL Park Ltd. finds that the lowest Tenderer, in spite of being the lowest in the overall price bid, has quoted disproportionately high rates under any of the items listed above or otherwise, the TIDEL Park Ltd. will reserve the right to discuss / negotiate with the lowest Tenderer towards rationalising of the quoted rates for such items either in comparison with the estimated rates or with the rates of other Tenderers. Likewise, the TIDEL Park Ltd. reserves the right to discuss / negotiate with the lowest Tenderer towards achieving conformity with the tender conditions. The Tenderers should note that the TIDEL Park Ltd. reserves the right to reject any conditional tenders and the decision of TIDEL Park Ltd. on such matters shall be binding on the Tenderers.
3. The tenderer shall inspect the site and obtain required details for proper execution of work successfully. The responsibility for obtaining all such data / details rests with the tenderer and no claim to extra at a later date will be entertained by Employer due to the failure of the tenderer to make sufficient investigation prior to tendering.
4. Tenderer shall include in his quoted rates all taxes except service tax, duties, levies, surcharge etc. levied by the central, State and Local Governments, Statutory bodies, Public utility companies, transit insurance for safety of materials / goods / equipment & machinery in transit and other similar incidentals etc. No extra payment will be entertained on account of these. The sales tax on works contract is also to be borne by the successful tenderer and no reimbursement will be made by the Employer. However, imposition of any new taxes / levies by Statutory Authorities as applicable to this Contract shall be payable by the Employer on production of documentary evidence.
5. The contractor prior to award of work, shall submit a Performance Bond as described else where in the tender / contract, at the specified percentage calculated on the value of the work. The Performance Bond for the work submitted by the Contractor to the Employer shall be held by the Employer as specified in the conditions described else where and the refund of the Performance Bond shall also be handled in a manner specified else where in the contract documents.
6. All rules and regulations of labour department, contract labour laws, Provident Fund & ESI and connected laws, Comprehensive All risk Insurance requirements and all other laws of the land are to be complied with by the tenderer.

7. The following important provisions in the tender shall be noted before quoting for the work:
 - b) Performance Bond in the form of Bank Guarantee:

Furnishing Bank Guarantee as Performance Bond in format appended before award of work, but on receipt of intimation from TIDEL Park Ltd., as to the decision on acceptance of the tender of successful tenderer.
 - c) Liquidated damages (not as penalty) for delayed completion as envisaged under clause 33 of the conditions of Contract and as specified under summary of Notice Inviting Tender and Condition of Contract.
8. Any treasures, antiques, valuable etc. found during excavation belong to the Employer and the same shall be handed over without causing any damage to them.
9. Schedule of quantities shall be referred to in volume II of the Tender documents.
10. The successful tenderer / contractor shall make post execution survey and report as soon as the works are completed duly checked all the actual dimensions with that required as per drawings and specifications. Any defects noticed beyond permissible tolerances shall be made good by the Contractor as per instructions of the Owner or P&FM without any extra cost and time.

The Employer's / P&FM's representatives' shall conduct a joint inspection with the Contractors' authorised representative during contract period and record any deviations or any quality defects or any such issues which require immediate attention / action from the Contractor to make good or rectify such defects or observations jointly recorded. The same shall be done without any extra cost. Failure / delay in holding such joint inspections shall not absolve the Contractor from his responsibilities to rectify any defects which may be subsequently noticed at any time after the respective stages of work.
11. Site organisation programme proposed to be adopted during execution of work and quality assurance and quality control procedures shall be submitted along with the tender.
12. The tenderers are to note that certain spares and equipment are to be supplied under the scope of the tender. These spares shall be kept at site in the stores for use during the operations and maintenance / comprehensive maintenance periods.

The spares owned by TIDEL used either during operation or maintenance / comprehensive maintenance under the operation / Maintenance Contract shall be duly replaced / replenished to TIDEL stores so that the quantum of spares available at to TIDEL stores is constant. The Operation / Maintenance Contractor must ensure that at no point of time should any system be rendered non-functional due to non-availability of spares at the stores on site.
13. Details of the service infrastructure in terms of the service staff strength and their qualifications, details of warehousing facilities for spares and the value of spares stocked shall be submitted.

Site Details

1. Location : No. 4, Rajiv Gandhi Salai
Taramani
Chennai – 600 113

CHENNAI
Latitude - 13 degree 00' N
Longitude - 80 degree 11' E
Height above MSL – 3 M
2. Temperature : Summer : 42 degree C
Winter : 20 degree C
3. Rainfall - Monthly – Peak
(During NE monsoon – Oct to Dec) : 250 to 300 mm (Appr)
4. Humidity : Average 74%
Ranges from 58% to 84%
5. Wind Speed : 50 Mtrs/Sec as per IS code 800

NOTE: The given format is a sample one. However before obtaining the BG from Bank, a draft BG format is to be approved from the Owner

BANK GUARANTEE FORMAT FOR PERFORMANCE BOND

To
TIDEL Park Limited
NO-4, Rajiv Gandhi Salai,
Taramani,
Chennai – 600 113.

In consideration of the TIDEL Park Limited (hereinafter called “TIDEL”) awarded the contract to _____ a company under the Companies Act, 1956 and having its registered office at _____ (hereinafter called “the said Contractor” which expression shall unless the context requires otherwise include its successors and assigns) from the demand under the terms and conditions contained in the Agreement for the Operation and Comprehensive Maintenance of Fire Protection System of TIDEL PARK LIMITED (hereinafter called the “the said Agreement”) for furnishing Performance Bond for the due fulfilment by the said Contractor of the terms and conditions in the said Agreement, by production of a Bank Guarantee for Rs. _____/= (Rupees _____ only) for the Operation and Comprehensive Maintenance of Fire Protection System. We the _____ Bank having branch at _____ hereinafter referred to as “the Bank” at the request of _____ do hereby undertake to pay to the TIDEL an amount not exceeding Rs. _____/= (Rupees _____ only) on demand by TIDEL.

We _____ branch do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the TIDEL stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____/= (Rupees _____ only)

We undertake to pay to the TIDEL, the amount due under this Guarantee so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder.

We _____ branch further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till the dues of the TIDEL under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till the Engineer in charge on behalf of the TIDEL certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor accordingly discharges this guarantee.

We _____ branch further agree with the TIDEL, that the TIDEL shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the TIDEL against the said Contractor and to forbear or enforce any of terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or for any forbearance act or omission on the part of the TIDEL or any indulgence by the TIDEL to the said FPS O&M Contractor or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.

This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

We hereby waive the necessity of your demanding the Contractor before presenting us with the demand.

We _____ branch lastly undertake not to revoke this guarantee except with the previous consent of the TIDEL in writing.

This guarantee shall be valid upto ----- unless extended on demand by the TIDEL. Notwithstanding anything contained herein before our liability against this guarantee is restricted to Rs. _____/= (Rupees _____ only) and it will remain in force till ----- unless a claim or demand in writing is made against us under this guarantee before the expiry of six months from the aforesaid date that is before ----- all your rights under the said guarantee shall be forfeited and we shall be relieved and discharged from all liability hereunder.

Notwithstanding anything contained herein:

Our liability under this Bank Guarantee shall not exceed Rs. _____/= (Rupees _____ only).

This Bank Guarantee shall be valid upto ----- unless this guarantee is extended for further period on demand from TIDEL Park Limited without referring to Contractor

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only if you serve upon us a written claim or demand on or before ----- or within the period extended after-----based on the demand from TIDEL Park Limited.

IN WITNESS WHEREOF I/We of the Bank signed and sealed this guarantee on the day of _____, _____ being herewith duly authorised by the Bank.

Witness : _____ For and on behalf of the Bank

Name :

Address :

Minimum Man Power requirement for Operation and Comprehensive Maintenance of Fire Protection System

Sl. No.	Designation	No. of persons	Qualification	Minimum Experience (No. of years)
1	O&M Incharge	1	Diploma in Mechanical Engineering	5 years and should have worked in Fire Protection Systems like Sprinkler, Hydrant system and fire extinguishers.
2	Technician	5	ITI holder	3 to 5 years and should have worked in Fire Protection Systems like Sprinkler and Hydrant system and fire extinguishers.

Note : The above man power is minimum requirement for routine operation and maintenance of Fire Protection system. In case of annual maintenance, major Break downs, Emergency situations, etc. contractor has to provide required manpower, tools, tackles, etc to full fill the contractual requirement. If Contractor feels that the above minimum manpower is not adequate for routine operation and maintenance of Fire Protection system, the contractor shall engage more manpower with in quoted price.

QUALITY CONTROL AND ASSURANCE

1.0 CONTRACTOR'S'S RESPONSIBILITIES

1.1 Quality Control

Contractor shall be responsible for producing a Quality Control Procedure for implementation. The procedure shall contain inspection report forms and test report forms to record the quality of the materials and workmanship, in accordance with the requirements of the Contract. The Procedures shall only be implemented with the approval of Owner.

1.2 Quality Assurance

Contractor shall be responsible for producing and implementing a Quality Assurance Plan to ensure that inspection and testing of the WORKS are carried out in accordance with the relevant provisions of the Contract.

1.3 Testing

Testing shall be in accordance with the requirements of the Contract. A full formal record shall be kept by Contractor. Contractor shall inform Owner/ P&FM at least twenty four (24) hours in advance of all tests requiring witnessing so that Owner can be present for the test.

2.0 INSPECTION AND TESTING BY OWNER

2.1 General

Owner shall have the right to inspect at all times any tools, instruments materials, staging, or equipment used or to be used in the performance of the WORKS. Contractor shall make all parts of the WORK accessible for these inspections.

2.2 Rejected Work and Equipment

Owner shall have the right to condemn any and all tools, instruments, materials, staging, equipment, or work which does not conform to Specifications.

Any defective work not conforming to Specification shall be rectified by Contractor at no additional cost to Owner.

CO-ORDINATION PROCEDURE

This procedure outlines various responsibilities of Representative(s) nominated by Owner, P & F Manager and Contractor for the Contract. Contractor will carry out proper execution of the services under the supervision of Owner’s Representative(s) or P&FM’s Representative(s).

1 Communication

- 1.1 English language will be used for all purposes.
- 1.2 All written communication shall be done at site level directly between Owner, P & F Manager and Contractor. All efforts must be made to keep correspondence to a minimum. If, for expediency, telephonic conversation is used, this must be confirmed in writing within two (2) working days, by both parties.
- 1.3 Notwithstanding any other provision under this Contract Agreement, hand delivery will be an approved means of exchange of letters.
- 1.4 P & F Manager shall prepare and issue Minutes of all Meetings and shall be responsible for obtaining approval of these minutes from Owner prior to release within two (2) working days of the meeting.

2 Operation, Maintenance and Repair Works Procedure

- 2.1 P&F Manager must set up services procedure in practice which is to be followed strictly and shall arrange for a meeting every week along with the respective O&M agencies for the individual packages with the owner and prepare, submit the minutes of meeting to the owner.
- 2.2 Owner has the sole right to revise the services procedure as per the requirements and P & F Manager is obliged to follow the same.
- 2.3 P & F Manager may propose improvements to the set up services procedures for consideration of Owner.

3 Site Instructions

- 3.1 Instructions shall be confirmed, in writing, using a numbered site instruction, and signed by Owner. P & F Manager is required to sign one copy of each instruction as confirmation of its receipt.

4 Reports and Services Records

- 4.0 Contractor is required to prepare and submit to Owner and P&FM various routine and special reports relating to the performance of the services.
- 4.2 Contractor is required to submit daily reports of all service activities. These service records shall particularly cover operation and maintenance and history sheets of various equipments covered under the scope of services.

5.0 Permits / Permissions

5.1 Security Passes

The Owner or P&FM may issue required passes to contractor's staff assigned to the project as situation warrant at any point of time. Contractor shall contact the Owner or P&FM as soon as such exigencies arise for the details of the procedure. Contractor shall familiarise himself with all requirements of the Owner on contract award so that time delay on account of passes shall be minimised. P&FM shall arrange for passes as required by the contract as soon as the request from the Contractor is received.

Any delay or expense incurred, resulting from securing passes from the Owner or P&FM shall not entitle contractor to any claim for extension of mobilisation time or completion dates or additional payments.

HAND BOOK ON HEALTH AND SAFETY AT WORK

FOR

CONTRACTS WORKING IN THE PROJECT

- “Contracts” – shall mean Operation and Comprehensive Maintenance of Fire Protection system Contract (FPS O&M) / his Sub-contractors etc. who are involved in the performance of the Contract with the Owner.
- “Owner”,
“Employer” - shall mean TIDEL Park Limited

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CONTRACTS GUIDELINES

SECTION - 1

INTRODUCTION :

This document defines the operations undertaken by Contracts and sub-Contracts on this premises, which can give rise to hazards to those engaged in the work and others that may be working, standing or passing in the vicinity.

It is the Owner's endeavor to secure a high standard of safety at site. Therefore, Contracts and sub-Contracts must know their duties under common law, both for establishments, and their own employees and the occupants to conduct their business and methods of work to conform to the best practices as per the Owner's ISO14000/OHSH18000 policies and standards.

Before the Owner, allows any contracting or sub- contracting firm to carry out work on its premises, the Owner insists that Contracts and sub-Contracts understand their duties regarding safe practices for themselves, others and regulations covering the type of work they will be carrying out.

In furtherance to this policy, rules herein have been devised to bring to the notice of Contracts and sub-Contracts, some of the more common hazards, and appropriate preventive measures in connection with the erection, construction, cleaning, painting, alteration or demolition of plant, machinery and buildings.

The Owner is confident that the observance of these rules will be no hindrance to progress the work, but will assist in the avoidance of accidents.

IT IS IN A TERM OF ALL CONTRACTS BETWEEN THE OWNER AND CONTRACTS THAT THEY AND ANY SUB-CONTRACTS, APPOINTED BY THEM COMPLY WITH THESE RULES AND THEIR CO-OPERATION IS THEREFORE OBLIGATORY IN CARRYING OUT THE PRECAUTIONS LAID DOWN.

Section - 2 : Details general rules which are applicable to most Contracts and sub-Contracts.

Section - 3 : Details specific rules which must be followed where applicable, where a particular type of work is to be undertaken.

All Contracts Supervisors will make sure that the Engineering Services / Safety Manager on this premises are notified as and when himself and others (Sub-Contracts) are reporting for work on that site.

SECTION 2

RULES FOR GENERAL OPERATIONS :

2.1 ACCESS :

Nothing shall be done or omitted to be done by Contracts or Sub-Contracts or their employees to render unsafe or obstruct:

- any means of access to the places at which people are required to work.
- the passage of people and / or vehicles whether on a defined gangway or not, unless permission is obtained from the designated safety officer.
- access for emergency apparatus, such as fire fighting equipment.
- Contracts and sub-Contracts shall nevertheless provide adequate fencing, lighting and warning signs to ensure safety at all times.

2.2 ACCIDENT AND INCIDENT REPORTING :

All notifiable accidents, dangerous occurrences and potential hazard situations shall be reported to the safety officer at site.

Injuries are to be treated by experienced medical staff available at site.

2.3 CONTRACTS AND SUB-CONTRACTS' TOOLS AND EQUIPMENTS :

All Contracts and sub-Contracts tools and equipments must comply with statutory regulations and approved codes of practices.

2.4 HAZARDOUS MATERIALS :

The Contract must inform the safety officer, prior to commencement of work, procurement of or materials connected with the contract work of a hazardous nature. The Contract will have to secure storage for any such material.

2.5 DUST AND FUME CONTROL :

Contracts and sub-Contracts must inform the safety officer at this premises of all processes producing dust or fumes, and under the conditions as laid down in the Factories Act 1948, Sections 14 & 17 the safety precautions are to be fulfilled.

2.6 FIRE HAZARDS AND PRECAUTIONS :

When at site, all fire regulations, as well as regulations under Section 38 and subsequent amendments if any under the Factories Act 1948, must be observed at all times.

2.7 **MACHINERY SAFETY :**

Contracts and sub-Contracts working at this premises must not remove or displace any guard, fencing or other safety equipment which is designed to protect personnel or machinery or any place where safety equipment has been provided without the written permission of the safety officer or his designated representative.

On completion of any work, any guards that had to be removed must be replaced immediately and whilst work is being carried out, machinery must not be operated. The requirement of the Factories Act Sections 21-26 and subsequent amendments if any must be followed:

2.8. **HOUSE-KEEPING :**

The House-keeping standards employed by contracts and sub- contracts, must be in high standards, as the Owner follows ISO 9001/ISO14000 policies and norms. Care must be taken by all responsible people to ensure that the standard of house-keeping for all establishments is known and understood.

2.8.1 House keeping and hygiene go hand in hand with safe working practices. Contracts and sub-Contracts must leave work areas in a clean, tidy and safe condition at the end of each working period.

2.8.2 Special attention must be paid to potential fire hazards, trip points and equipment left in a hazardous condition noticed during their operations shall be intimated immediately to the Helpdesk of the housekeeping agency/TIDEL Control Centre.

2.8.3 Contamination of any product (by drill swept sawdust, oil, salient, paints and materials etc.) must be avoided at all costs, and the officers of the Owner are empowered to stop any activity, which could result in contamination.

2.9. **NOISE :**

Contracts and sub-Contracts working at this premises must obtain permission from the safety officer (P&FM) /Owner if the processes being employed to carry out that work significantly increase the ambient noise level in that area being worked.

2.10. **OVERHEAD WORKING :**

No work may be carried out above the heads of people or over gangways or roads, until all precautions have been taken to ensure the safety of the persons below, and until the safety officer/Owner gives permission. Each specific site of overhead working will require consent from the safety officer. This will be given after satisfactory inspection.

Work may be carried out in the vicinity of power cables only when permission is obtained from the safety officer and/or Owners representative.

Work connected with overhead safety includes the movement of long metal objects, machinery, jibs, masts, arms or other elevated parts.

2.11 **WORKING AT HEIGHT :**

All temporary structure erected by Contracts or sub- Contracts for the purpose of allowing their staff to work at heights of more than 2 M. above floor level must be constructed in accordance with the Safety Regulations laid down.

Whenever possible, ladders are to be made of wood and in good condition. Metal ladders must not be used where there is any possibility of the ladder coming into contact with an electrical conductor.

Roof working must be properly supervised.

2.12 **SAFETY CLOTHES AND EQUIPMENT :**

This will be supplied by Contracts and sub-Contracts that are working on sites and must be adequate for the well being of their staff engaged in the type of work contracted for.

The equipment and its use must comply with the regulations and codes of practice as laid down that apply to the conditions of work being undertaken.

Contracts and sub-Contracts will be responsible for the use of any tools and equipment that is supplied by them, or their staff to the exclusion of all responsibility of the Owner. Tools will be maintained to the highest standard of safety. Whilst in the possession of such tools, the person so using said tools is responsible for the continued maintenance of safety standards.

It is the individual's responsibility to ensure that the tools he works with are suitable for the job, and in a safe condition prior to work commencement. All necessary tools and equipment to complete a contract should be supplied by the Contract. Due provision must be made during contract preparation.

2.13 **PLANT SERVICES :**

Before using plant services such as electricity, permission to do so must be obtained from the appropriate authority, Owners representative/ Safety Officer

2.14 **SUPERVISION :**

Contracts working at this premises must ensure that their staff are adequately supervised.

2.15 **WARNING SIGNS AND NOTICES :**

Suitable warning signs are to be displayed at the respective locations, warning of potential hazards.

SECTION – 3

TOOLS

3.1 ELECTRICALLY DRIVEN PORTABLE TOOLS :

Permission is to be obtained from the nominated person before any Contract or sub-Contract's electrical hand tools can be connected to the electricity supply.

Connection must be by 3-core and 3-pin plugs and sockets, except when tools are double insulated on a 2-wire supply. Where the supply is 3-phase, 4-core cable and 4-pin plugs and sockets with earth connections must be used. Connections without proper sockets are not permitted

Make-shift connections are prohibited.

The use of extension cables is discouraged, but sometimes necessary.

Portable electric lamps must be the 'Gripper' type with caged wire protection for the bulk and precautions as laid down under Section 36-37 of the Factories Act 1948 and subsequent amendments if any, must be observed.

In all cases, with the exception of double insulated tools, the metal work of the tools must be effectively earthed, also any flexible metallic cable coverings must be earthed.

3.2 COMPRESSED AIR TOOLS

Contracts and sub-Contracts must obtain permission to use any compressed air supply at this premises. Contracts and sub-Contracts must also provide suitable noise suppression for pneumatic hammers, drills etc.

3.3 PERCUSSION CARTRIDGE TOOLS

Permission to use percussion tools must be obtained from the designated safety officer by Owner prior to the use of these tools.

Also when using percussion tools, it is the individual duty to ensure that the charges used in said tools are correct. These tools are to be handled as dangerous weapons, never leave tools unattended, never leave tools charged or store charged, never point tools at personnel, always lock up when finished both tool and charges.

3.4 HOISTING AND LIFTING :

Permission must be obtained prior to the use of Plant and equipment, from the P&FM/Owner or other nominated responsible person. Equipment must be adequate for the purpose required and anchorage approved by the site safety officer/ /Owner.

All equipment so used must have been examined by a competent person, and where necessary a certificate obtained in accordance with Sections 28 and 29 of the Factories Act 1948 and subsequent amendments if any shall be observed. No object is to be left unattended whilst using lifting equipment.

3.5 MOVEMENT OF PLANT AND MACHINERY

Permission must be obtained from the appropriate authorities prior to the movement of construction materials, plant or equipment in and around Project site.

3.6 POWERED INDUSTRIAL TRUCKS

Permission must be obtained from the appropriate authorities prior to the use of lift-trucks by Contracts or sub-Contracts at this premises.

Trucks must only be driven by competent licensed personnel with valid license and must comply with statutory regulations.

SECTION – 4

CONTRACTS AND SUB-CONTRACTS GUIDELINES

1. Safe working practices must be observed at all times.
2. It is the responsibility of the contracts and sub- contracts staff to use appropriate personal protection. It is the Contracts and sub-Contracts obligation to supply necessary protective equipment and clothing.
3. Certain areas are designated hazardous (e.g. noisy areas) and warning signs must be obeyed.
4. Where the Contracts and sub-Contracts work presents a potential hazard, appropriate notices must be supplied and displayed, and the area made secure as far as is reasonably possible.
5. The Owner will not provide tools, materials, lifting or access equipment, fixings or raw materials, unless by previous arrangement.
6. Any equipment brought to site by contracts and sub- contracts must not be used by untrained persons, and attention is drawn to the indemnity clause of the Owner orders, which states that the Contracts is liable for any consequent damage or loss to people, equipment or buildings.
7. All welding, burning and grinding operations which could potentially cause fire must be reported to security.
8. Vehicle parking will be in designated areas only.
9. No smoking is allowed inside the building and service building, near the fuel storage tank, waste oil storage area, scrap dumping yard, waste collection yard, LPG stored area and wherever hazardous area notified by the Owner. This has to be strictly enforced by the P&FM/safety officer/Fire officer.
10. No food is to be consumed or left in work areas.
11. Warning signs and speed restrictions must displayed and be observed.
12. Place of work to be left in a tidy and safe condition at the end of each work period.
13. Care to be taken against contamination of any product of paint, oil, etc.
14. All injuries must be reported to the Ambulance Authority or to Security officer/staff who shall all be trained in First Aid.

The above has been received and read by Contract / Sub- Contract, we agree to comply with these Rules (See foot-note)

Contracts

Company.....

Date

.....

NOTE :

The Contract will ensure that sub-Contract receive and sign a copy of these Rules.

**INSURANCE CONFIRMATION LETTER
(To be typed on Contractor’s Letterhead, Signed &
Stamped by Authorised Person)**

To

Tidel Park Limited
4, Rajiv Gandhi Salai
Taramani, Chennai - 600 113

Dear Sir,

**Sub : Confirmation of Insurance Policies Contract / Agreement No. for
Operation and comprehensive Maintenance of Fire Protection System and
Fire Fighting System for TIDEL PARK LIMITED**

We hereby confirm that we have effected valid insurance policy(ies) expiring on which comply(ies) with all the requirements and conditions stipulated in the Insurance and Indemnity Article of the above Contract / Agreement including inter-alia :-

- Waiver of subrogation against its servants, agents, employees, subsidiaries and all other companies in the Owner’s Group and
- being included / named as an additional insured in the capacity of principal which are endorsed to the insurance policy(ies).

Corporate or Company Seal

Authorized Signature

Name of Contractor

By : _____

Title _____

TIDEL PARK LIMITED

OPERATION AND COMPERHENSIVE MAINTENANCE OF FIRE PROTECTION SYSTEM

PRE QUALIFICATION CONDITIONS

TIDEL Park Limited, the state of the art infrastructure and service provider to IT and IT related Companies is firmly committed to synergise the provision of world class services to its occupants with a sustainable environment. The building consists of various electrical, mechanical and communication facilities. Sealed tenders are invited from reputed Fire Protection system operation and maintenance Contractors (FPS) who meet the eligibility criteria for the work of Housekeeping and Waste Management services for TIDEL Park Limited.

The selected FPS Contractor will be inducted with the P&FM agency who has been appointed with overall single point responsibility for Managing and Maintaining the above property with all facilities and services including take over from existing contractor, Operation and Maintenance.

Eligibility for Pre-qualification:

a.	Annual Turnover (specific to the Fire Protection System in any one of the years during 01.04.2008-31.03.2011)	Rs.35 Lakhs
b.	Experience in Operation and Maintenance of Fire Protection System and Fire Fighting system	Two jobs in providing FPS services in Multi-story building of not less than 6 lakh sq.ft. each during the period of 01.04.2008 to 31.03.2011 on continual basis.(Proof of work order completion certificate should be produced.)

Tender forms are obtainable from the TIDEL Park administrative Office, First floor, A- Block North No.4, Rajiv Gandhi Salai, Taramani, Chennai – 600 113 from **10.11.2011 to 08.12.2011** on payment of non-refundable amount of Rs. 5,000/- (Rupees five thousand only) plus VAT 5% towards cost of tender documents in the form of Demand Draft drawn in favour of TIDEL Park Limited, payable at Chennai, during the office hours on all working days. Pre-bid meeting will be held at **11.00 a.m on 24.11.2011** at TIDEL Park Office. Tender forms are not transferable and will be acceptable only from the parties who have purchased the tender documents. Completed tenders shall be submitted to the Managing Director, TIDEL Park Limited, First floor, A- Block North, Tidel Park, No. 4, Rajiv Gandhi Salai, Taramani, Chennai – 600 113 in a sealed cover superscribed "Tender for Operation and Comprehensive Maintenance of Fire Protection System and Fire Fighting System" for TIDEL Park Limited on or before **3.30 p.m. on 09.12.2011**. Tidel reserves the right to extend the last date and time due to the need of any clarifications, if any raised by the tenderers after the pre-bid meeting. If any extension of submission date, the same will be communicated in advance.

TIDEL Park Limited reserves the right to accept or reject any or all tenders without assigning any reasons thereof.

TIDEL PARK LIMITED

TARAMANI, CHENNAI

**TENDER FOR OPERATION AND COMPREHENSIVE MAINTENANCE OF
FIRE PROTECTION SYSTEM**

PRE-QUALIFICATION FOR CONTRACTORS

CONTENTS

1.0 Information and instructions to applicants

- 1 General
- 2 Definitions
- 3 Method of Applying
- 4 Final Decision Making Authority
- 5 Provisional Particulars
- 6 Site Visits
- 7 Eligibility for Pre-qualification
- 8 Submission of Pre-qualification Tender documents
- 9 Particular Attention
- 10 Queries and Pre-bid meeting
- 11 Submission and opening of Pre-qualification Documents
- 12 Price and Currencies
- 13 Important Conditions of Empanelment.
- 14 Splitting of Contract
- 15 Brief Description of work

2.0 Pre-qualification Information

- 1) Appendix A : Letter of Transmittal
- 2) Format – A : Structure and Organisation
- 3) Format – B : Personnel
- 4) Format – C : Experience of completed Fire Protection system Operation and Maintenance works
- 5) Format – D : Experience of on going Fire Protection system Operation and Maintenance working
- 6) Format – E : Requirement of Clause 7.0 (Eligibility for PQ)
- 7) Format – F : Details of facilities available for performing services
- 8) Format - G : Certificates

**INFORMATION AND INSTRUCTIONS TO PROSPECTIVE APPLICANT FIRM (S)
FOR SELECTION OF OPERATION AND COMPREHENSIVE MAINTENANCE OF
FIRE PROTECTION SYSTEM CONTRACTOR**

1 GENERAL

- 1.1 Letter of Transmittal and information required for pre-qualification shall be submitted as per formats attached.
- 1.2 Applications are not transferable and will be accepted only from the parties who have purchased the documents from TIDEL PARK LIMITED.
- 1.3 All information called for shall be furnished against the respective columns in the enclosed form. If information is furnished in a separate document, reference to the same should be given against respective column(s). If information is "Nil" it should also be mentioned as "Nil" or "No such case". If any particular query is not applicable to the applicant firms, it should be stated as not applicable, however the applicant firms are cautioned that not giving complete information called for in the application in the form required or not giving it in clear terms or making any change in the prescribed forms, may result in summary disqualification of the applicant firm. Applications made by telegram, fax, e-mail etc. and those received late shall be summarily rejected.
- 1.4 All information shall be furnished in English.
- 1.5 The Application shall be typewritten / printed. The applicant firm's name shall appear on each page of the application.
- 1.6 Overwriting shall be avoided. Mistakes shall be scored through and corrections incorporated and attested by the authorised signatory. All pages of the pre-qualification tender document shall be numbered and submitted as a package along with a signed letter of transmittal.
- 1.7 References Information and Certificates from the respective clients certifying suitability, technical know-how or capability of the applicant firm shall be signed by the authorised signatory of client.
- 1.8 The applicant firm is advised to furnish any additional information, which they think is necessary in regard to its capabilities. No further information will be entertained after submission of pre-qualification tender document unless it is called for by TIDEL PARK LIMITED.
- 1.9 The pre-qualification cum technical bid (Volume-I) and Price bid (Volume-II) in respect of the **OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECTION SYSTEM AND FIRE FIGHTING SYSTEM** as detailed in the Notice Inviting Tender of **OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECTION SYSTEM AND FIRE FIGHTING SYSTEM Contractors** shall be submitted in the prescribed forms duly completed and signed. The document shall be submitted in a sealed envelope addressed to the Managing Director, Tidel Park Ltd, First floor, A- Block North, Tidel Park, No. 4, Rajiv Gandhi Salai, Taramani, Chennai – 600 113, superscribing "Tender for the work of **OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECTION SYSTEM AND FIRE FIGHTING SYSTEM** for TIDEL PARK LTD. Tender shall be received by the Managing Director, TIDEL PARK LTD. upto **3.30 p.m. on 09.12.2011**. Documents

submitted in connection with the pre-qualification will be treated as confidential and will not be returned. Please also refer Serial no. 11.0

- 1.10 The cost incurred by applicant firms in preparing their application, in providing clarifications or attending discussions, conferences in connection with this document will not be reimbursed by the TIDEL PARK LTD., under any circumstances.

2 Definitions

- 2.1 In this document the following words and expressions have the meaning hereby assigned to them.
- 2.2 Applicant Firm : means proprietary firm, firm in partnership/ joint venture with a foreign company; , limited company or corporation applying to become eligible to tender.

Other definitions are as per details in Volume-I.

3. Method of Applying

- 3.1 If the application is made by a proprietary firm, it shall be signed by the proprietor above his full type written name and the full name of his firm with its current address.
- 3.2 If the application is made by a firm in partner-ship, it shall be signed by all the partners of the firms above their full typewritten names and current addresses, or alternatively by a partner holding power of attorney for the firm in which case a certified copy of the power of attorney shall accompany the application. A certified copy of the partnership deed, full names and current addresses of all the partners of the firm shall also accompany the application. (*)
- 3.3 Selection for pre-qualification will be made by TIDEL PARK LTD. on the basis of the strength of individual applicants.
- 3.4 Any change in the legal status of an applicant subsequent to submission of application may invalidate the pre-qualification.

4. Final Decision Making Authority

TIDEL PARK LIMITED reserves the right to accept or reject any of the applications/ tender(s) without assigning any reasons thereof. TIDEL PARK LTD., reserve the right to increase or decrease the scope of work and may split the scope of work and award the works to one or more agencies and as deemed necessary by TIDEL PARK LTD. Decision of TIDEL PARK LTD is final and binding.

5. Provisional Particulars

The particulars of the proposed **OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECTION SYSTEM AND FIRE FIGHTING SYSTEM** work given herein must be considered only as general guidelines. Bidders are requested to obtain any further information required from the Owner before submitting the tender.

6. Site Visit

The site of works may be inspected by the applicant or his representative at his own cost, with prior appointment . Technical persons of TIDEL PARK LTD may accompany the applicant, if required, on prior intimation.

7. Eligibility for Pre-qualification:

a.	Annual Turnover (specific to the Fire Protection System in any one of the years during 01.04.2008-31.03.2011)	Rs.35 Lakhs
b.	Experience in Operation and Maintenance of Fire Protection System and Fire Fighting system	Two jobs in providing FPS services in Multi-story building of not less than 6 lakh sq.ft. each during the period of 01.04.2008 to 31.03.2011 on continual basis.(Proof of work order completion certificate should be produced.)

8 Submission of Pre-qualification Tender Documents

8.1.1 To be eligible for pre-qualification, applicants shall provide evidence to suitability of their meeting the Criteria indicated in Clause – 7.0 above and furnish details to establish their capacity and possession of adequate resources to carry out the contracts effectively and for this, the applications submitted shall include the following: (*)

- a) Letter of transmittal; as in Appendix A
- b) Copies of original documents defining the legal status of the Firm, its structure and organisation, place of registration and principal place of business of the applicant in Format – A; If there are any foreign tie-ups, details on nature of tie-up, i.e. technical, financial etc. shall be furnished.
- c) The qualification and experience of key personnel proposed for administration and execution of the contract, both on and off site in the format prescribed in Format – B.
- d) Details of experience and past performance of the Firm on works of a similar nature completed in Format C.
- e) Details of current on going works of similar nature on hand and other contractual commitments in Format D as on date of tender submission. Owner may visit the ongoing works being carried out by the applicants and the applicant may arrange for necessary permission from the client.
- f) Details of facilities available for Performing the services in Format-F.
- g) Certificates in support of suitability and capability for having successfully completed operation and comprehensive maintenance of Fire Protection System works during the last three years in Format-G.

- h) A detailed description of any latest method of approach specially devised by the contractor for smooth and effective performance of operation and comprehensive maintenance of Fire Protection System work to international level, and
- i) Information regarding any current litigation in which the applicant is involved; and
- j) Solvency certificate for Rs. 5 lakh or letter of support from bankers to be furnished.

8.2 The applicants for pre-qualification must provide evidence of having adequate experience. This should include supporting certificates or reports relating to financial, technical and other capability of the applicants.

8.3 Earned money Deposit

Rs. 40,000/- (Rupees Forty Thousand only) by Crossed Demand Draft in favour of Tidel Park Limited, payable at Chennai.

9.0 Particular Attention

Applicants shall be disqualified at any stage at their risk and cost if they are found to have:

- (i) made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification and requirements;
- (ii) record of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in carrying out the services or financial failures etc.
- (iii) Non Submission of EMD along with Pre-qualification and technical bid documents.

10.0 Queries & Pre-bid Meeting

The applicants for pre-qualification are requested to submit any questions in writing, to reach the Managing Director, TIDEL PARK LTD, First floor, A- Block North, Tidel Park, No.4 Rajiv Gandhi Salai, Taramani, Chennai 600 113 not later than 5 working days before the pre-bid meeting to be held at **11.00 a.m. on 24.11.2011.**

11.0 Submission & opening of Pre-qualification Documents

Completed applications both Pre-qualification cum Technical bid and Price bid in two separate sealed covers shall be submitted to the Managing Director, TIDEL PARK LTD, First floor, A- Block North, Tidel Park, No.4 Rajiv Gandhi Salai, Taramani, Chennai 600 113 in one sealed cover superscribed as "Pre-qualification cum technical bid" along with the EMD and the other cover as "Price bid" for the work of **operation and comprehensive maintenance of Fire Protection System and Fire Fighting System** for TIDEL PARK LTD. at Taramani, Chennai" on or before **3.30 p.m. on 09.12.2011.** The cover containing pre-qualification cum technical bid and sealed cover containing the EMD will be opened at **4.00 p.m.** on the same day at the above mentioned address in the presence of bidders who choose to be present. The price bid of only the pre-qualified Bidders could be opened at a later date with intimation to the Pre-qualified Bidders. The price bid of the unqualified tenderers will be returned in unopened condition.

12.0 Price and currencies:

Tenderer shall quote all unit prices and total tender price in Indian Rupees only. All payments under the contract shall be made in Indian Rupees only.

13.0 Important Conditions for Empanelment

13.1 Condition of Contract will be as per standard practice being followed in India and duly modified for local conditions and to suit the fast track approach under an overall and single point responsibility of a operation and comprehensive maintenance of Fire Protection System Contractor. Performance bond, default and liquidated damages (not as penalty) clauses will be provided for in the Contract conditions. The bidder shall be responsible for procurement of materials, (whether Indian or imported; controlled or uncontrolled), man power, tools and plants, equipment etc. required for the performance of the contract.

13.2 The successful tenderer on intimation of acceptance of the tender shall sign an agreement with Tidel Park Ltd. The successful tenderer will be termed as operation and comprehensive maintenance of Fire Protection System Contractor (FPS O&M Contractor) who will assume an overall and single point responsibility for proper and timely execution of the contracted works, including taking over of all buildings, facilities, services in the said premises from the existing P&FM executing the works and supervising, coordinating with all Contractors contracted for operation and maintenance of specialised services.

13.3 Payment towards the work carried out by the operation and comprehensive maintenance of Fire Protection System Contractor shall be made by Tidel Park Ltd, to the operation and comprehensive maintenance of Fire Protection System within 14 (fourteen) days from the date of submission of quarterly bills in arrears in accepted formats.

13.4 The FPS O&M Contractor shall be directly responsible to the Tidel Park Ltd in compliance with the Contract agreement based on the tender.

14.0 Splitting of contract

Tidel Park Ltd. may delete portions of scope of operation and comprehensive maintenance of Fire Protection System work and may appoint a specialised agency for such works. The applicant for pre-qualification is deemed to have consented to the same.

15.0 Brief Description of Work

The Tidel Park building consists of 2 Basement floors, Ground Floor, and twelve upper floors. The work shall be operation and comprehensive maintenance of Fire Protection System as described in the Volume-I. Taking services from the existing contractor/P&FM engaged by Tidel duly supported by trained man power to the full satisfaction of TIDEL PARK LTD.,

Note : (*) Denotes requirement of enclosure(s) along with the application.

LETTER OF TRANSMITTAL

Date :

To

The Managing Director
Tidel Park Limited
First Floor, A-Block North
Tidel Park
No.4 Rajiv Gandhi Salai,
Taramani, Chennai - 600 113

Sir,

Sub: Submission of pre-qualification application for the work of operation and comprehensive maintenance of Fire Protection System for “TIDEL PARK LTD” at Taramani, Chennai.

- 1 Having examined the details given in the tender Invitation to pre-qualify Bidders for the work referred under subject above we hereby submit the pre-qualification information and relevant documents.
2. We hereby certify that all the statements made and information supplied in the enclosed Formats A to G and accompanying statements are true and correct.
- 3 We have furnished all information and details necessary for pre-qualification and have no further pertinent information to supply.
- 4 We submit the requisite certified solvency certificate and authorise the TIDEL PARK LTD to approach the Bank issuing the solvency certificate to verify the correctness thereof. We also authorise TIDEL PARK LTD to approach individuals, employers, firms/clients, and corporation to verify our competency and general reputation.
- 5 We also submit a detailed description of our latest methods of performing the services as required in the Clause 8.1(i) of the Pre-qualification documents.
- 6 We submit in Format-G the certificates in support of our suitability, technical know-how and capability for having successfully completed the works during the last three years.

Enclosures [refer items marked with (*)]

Please refer checklist below:

Please state whether following enclosures has been enclosed or not.

Sl.No.	Description of item	Enclosed	Not enclosed
1.	Application in duplicate including Letter of Transmittal and Formats A to G.		
2.	PAN Number and Copies of I.T. clearance certificate.		
3.	Certificate of Registration from any Government / Public Bodies		
4.	Copies of Audited Balance Sheet and P & L statement for the past 3 years.		
5.	Solvency certificate from Bankers.		
6.	Copies of C.S.T/S.T clearance certificate for the past 3 years and registration certificates.		
7.	Supporting certificates for technical and financial capability from relevant authorities.		
8.	List of Board of Directors / Partners.		
9.	Organisation Chart with responsibilities.		
10.	Details of facilities for performing the services.		
11.	Details of tie-ups if any, technical, financial with reputed foreign organization.		
12.	A detailed write-up on any latest method of approach specially devised by the applicant to perform the work to international level.		
13.	EMD as called for in Tender		
14.	Service tax registration No.		
15.	Any other important information.		

I / we hereby agree to abide by the decisions of TIDEL PARK LIMITED in all matters relating to this pre-qualification.

Place:

Date of Submission

Signature of Applicant with Seal

STRUCTURE AND ORGANISATION

1. Name of Applicant firm
2. a Registered Office Address
 - Telegraphic Address
 - Telephone Number
 - E-mail
 - Fax Number
- b. Office address through which this work will be handled and name of officer in-charge and the telephone/ fax numbers/ e-mail id.
- c. Year of establishment and location of Establishment
3. Number of years experience as a operation and comprehensive maintenance of Fire Protection System contractor.
4. The applicant firm is
 - a) a Proprietary Firm
 - b) a Firm in Partnership
 - c) a Limited Company or Corporation
 - d) a Group of companies
 - e) firm in joint venture/ tie up with a foreign company
5. Attach the Organisation Chart showing the structure of the organisation including the names of the Directors and position of Officers.
6. Were you ever required to suspend work for a period of more than 3 months? If yes, give the name of work and reasons thereof.
7. Have you ever left the work awarded to you incomplete? (if so, give name of work and reasons for not completing work)
8. In how many of your works were penalties imposed for delays and out of how many works handled in that year (please give details)
9. In how many of your works cases of litigation have arisen out of how many works handled in that year ?

10.
 - a) Income tax clearance certificate for Organisation / Firm.
 - b) State Permanent Account number.
 - c) Solvency certificate for Rs.5 Lakhs or Letter of Support from your Banker.

11.
 - a) Adequate and satisfactory evidence to take up the work as a operation and comprehensive maintenance of Fire Protection System Contractor with reference to the requirements as mentioned in the tender notice. Enclose Annual report / Balance sheet and P & L statements for the past two years.
 - b) Banker's overdrafts and credit facilities available.
 - c) Particulars of registration etc. if registered with any Government, Semi-Government, Municipal or other organization, /ISO 9001 Certification
(Give details including classification licence etc)
 - d) Sales tax Registration no:
TNGST
CST
VAT
 - e) GST of any other state
 - f) Service tax registration N:-
G) Others (Specify)

12. Please give two references of firms (Engineers, Architects or top Officials of client Organisations) for whom you may have carried out operation and comprehensive maintenance of Fire Protection System works of importance from whom TIDEL PARK LTD., can verify directly about the ability, competence or capability of your organisation. Preferably attach certificates duly signed by the top officials of the organizations in their letterhead.

13. Give details of your plans for Sub-Contractors with full details, if any, in terms of percentage of works.

14. Do you have any tie-up with foreign company? If yes, give nature of tie-up, since when and full details of company with name and address. Necessary proofs have to be attached.

Place:

Date :

Signature of Applicant with seal

PERSONNEL

Give details of key Technical and Administrative Personnel (who could be assigned for this works) in the following proforma.

- A. Details of the Board of Directors
 - 1.Name of the Director
 - 2.Organisation
 - 3.Address

- B. Key Technical and Administrative Personnel and Consultants:
 - 1) Individual's Name
 - 2) Qualification
 - 3) Present position of office
 - 4) Professional experience and details of operation and comprehensive maintenance of Fire Protection System works carried out
 - 5) Years with the applicant
 - 6) Language known
 - 7) Additional information

- C Details of Service Personnel to take care of various services.

Place:
Date:

Signature of Applicant with seal

EXPERIENCE OF COMPLETED WORKS

Give details of the similar type of operation and comprehensive maintenance of Fire Protection System work and Fire Fighting System (satisfying the requirements mentioned in the tender notice) completed during the last 3 years in the following proforma (separate form for each work)

1. Name of work and location
2. Client's name, address, contact person, Phone No., fax No., and e-mail ID
3. In case of Indian Company, was there any tie-up with foreign company? If yes, give name, address and details of company with nature of tie-up and since when.
4. Total tendered cost of work (Agreement No. and Date)
5. Brief description of works including principal features and main items of the work.
6. Name of applicant's Building & Facility Manager of the work and professional Qualifications.
7. Period of Contract
 - a. Originally stipulated time limit
 - b. Renewal time, if any.
8. Were there any penalties/fines/stop - notice/compensation/liquidated damages imposed? (Yes or No)(If yes give details, amount and explanation).
9. Details of litigations / arbitration cases, if any, pertaining to works completed.
10. Attach client's certificate as may be available. (Signed by Authorised Signatory of not below the rank of Director) along with copy of work order, agreement clearly stating the scope and details of operation and comprehensive maintenance of Fire Protection System work.

Place:

Date:

Signature of the Applicant with seal

EXPERIENCE OF ONGOING WORKS

Give details of operation and comprehensive maintenance of Fire Protection System and Fire Fighting System works (satisfying the requirements mentioned in the tender notice) ongoing and performance progress as on the date of submission of pre-qualification document in the following proforma. (Separate form for each work)

1. Name of work and location
2. Client's name, address, contact person, Phone No., Fax No., and e-mail ID
3. In case of Indian Company, Is there any tie-up with foreign company? If yes, give name, address and details of company with nature of tie-up and since when.
4. Total tendered cost of work (Agreement No. and Date; copy to be attached)
5. Name of Applicant's Building & Facility Manager with professional qualifications.
6. Brief description of work including principal features and main items.
7. Details of works on hand
 - a. Present stage of work.
 - b. Stipulated date of completion
 - c. Anticipated date of completion
 - d. Present stage of payment receipt
(percentage)
8. Reason for delay if any in carrying out the job.
9. Were there any penalties / fines / stop – notice / compensation / liquidated damages imposed? (Yes or No). (If Yes, give details, amount and explanation).
10. Were there any fines, claims or stop notice filed by the employer? (Yes or No)
(If yes, give details, amount and explanation)
11. Details of litigations/arbitration cases, if any, pertaining to works ongoing.

12. Attach client's certificate, as may be available (Not below the rank of Director or equivalent) along with copy of work order, agreement clearly stating the scope and details of operation and comprehensive maintenance of Fire Protection System work.

Place:

Date:

Signature of the Applicant with seal

REQUIREMENT OF CLAUSE 7.0 (ELIGIBILITY FOR PRE-QUALIFICATION)

1.	Do you satisfy requirement of Clause 7.01 Details to be furnished.	Yes / No
2.	Do you satisfy requirement of Clause 7.02 Details to be furnished.	Yes / No

Place:

Date:

Signature of Applicant with seal

FORMAT – F

Details of facilities available with operation and comprehensive maintenance of Fire Protection System and Fire Fighting System contractor for performance of services.

CERTIFICATES

Certificates in support of suitability, technical know-how and capability for having successfully completed the operation and comprehensive maintenance of Fire Protection System and Fire Fighting System works during the last three years along with copy of work order, agreement clearly stating the scope and details of work.

SPARES MANAGEMENT DETAILS**OPERATION AND COMPREHENSIVE MAINTENANCE OF FIRE PROTECTION SYSTEM**

The O&CM Contractor have been fixed the responsibility of maintaining essential spares at TIDEL site, to reduce the downtime for want of spares. Some essential spares have been purchased by TIDEL and the list of such spares is furnished below (List 1) The Contractor may utilize these spares whenever required and shall replenish the same immediately with a new one in good working condition. In addition to the list 1, TIDEL also identified some other essential spares which needs to be maintained by the Contractor at all times as minimum stock at TIDEL site which is furnished in List 2. If the O&CM Contractor identifies any other additional spares needs to be maintained apart from the above 2 Lists, the same also shall be in the scope of the O&CM Contractor. All the minimum stock of spares maintained by the Contractor as per the tender condition at site should be handed over to TIDEL at the end of the Contract period without any additional cost. The Contractor shall include all the spares cost needs to be replaced during the entire Contract period and also the minimum stock of spares (List 2) to be handed over to TIDEL at the end of the Contract period. The quantity of minimum stock of spares has been arrived based on past experience at TIDEL only. Therefore the Contractor has to make a detailed study based on the lead time, availability etc and to improve/modify the quantity and list of spares in order to avoid down time of equipments for want of spares.

At any time, the Contractor has to maintain the minimum stock of spares (List 2) and also to replenish the TIDEL owned spares (List 1) immediately without waiting for realization/settlement of Insurance claims. However, the Contractor shall replace the spares within three days if readily available in the market. If any spares needs longer lead time, the order for the procurement/service of such spares shall be sent to the concerned supplier/agency within 24 hours and a copy of order has to be submitted to TIDEL.

The Contractor has to maintain/replace only OEM or OEM recommended spares. In case of any spares not available, equivalent spare along with any accessories shall be replaced after getting prior approval from TIDEL/P&FM.

Monthly stock statement of all spare parts should be submitted to TIDEL/P&FM. The inspection will be carried out on the availability/quality of spares at any time during the contract period by TIDEL/P&FM. Any spares brought in TIDEL should be subjected to inspection by TIDEL/P&FM and rejected items to be replaced with a correct one immediately.

LIST-1

SPARES OWNED BY TIDEL

The following list of spares are owned by TIDEL for Fire Protection system. The spares owned by TIDEL shall be used by Contractor during contract period and same shall be duly replaced / replenished by new one to TIDEL stores so that the quantum of spares available at to TIDEL stores is constant.

Sl. No	Description	Unit	Qty
a)	<u>Mandatory spares for Engine</u>		
i)	Fuel filter elements and seals	sets	6
	Hydrant Engine- 2sets (1set is one cylinder with filter elements & seals)		
	Sprinkler Engine- 2sets (1set is one cylinder with filter elements & seals)		
	Emulsifire Engine- 2sets (1set is two cylinders with filter elements & seals)		
ii)	Lubricating oil filter elements & Seals	sets	6
	Hydrant Engine- 2sets (1set is one filter with elements & seals)		
	Sprinkler Engine- 2sets (1set is one filter with elements & seals)		
	Emulsifire Engine- 2sets (1set is one filter with elements & seals)		
iii)	Belts	sets	6
	Hydrant Engine- 2sets (1set is three belts)		
	Sprinkler Engine - 2sets (1set is three belts)		
	Emulsifire Engine - 2sets (1set is two belts)		
iv)	Engine joints, Gaskets, hoses & Scrapper rings	set	3
	Hydrant Engine- 1set (1set is Engine joints, Gasket, 3nos hose & 4set of scrapper rings)		
	Sprinkler Engine- 1set (1set is Engine joints, Gasket, 3nos hose & 4set of scrapper rings)		
	Emulsifire Engine- 1set (1set is Engine joints, Gasket, 1no hose & 4set of scrapper rings)		
v)	Injector nozzles	nos	6
	Hydrant Engine - 2 Nos		
	Sprinkler Engine - 2 Nos		
	Emulsifire Engine - 2 Nos		
vi)	Piston rings for each cylinder	Nos	3
	Hydrant Engine- 1set (1set is 4 pistons ring sets)		
	Sprinkler Engine- 1set (1set is 4 piston ring sets)		
	Emulsifire Engine- 1set (1set is 4piston ring sets)		
vii)	Inlet valve	nos	3

Sl. No	Description	Unit	Qty
	Hydrant Engine - 1 No		
	Sprinkler Engine - 1 No		
	Emulsifire Engine - 1 No		
viii)	Exhaust valve	nos	3
	Hydrant Engine - 1 No		
	Sprinkler Engine - 1 No		
	Emulsifire Engine - 1 No		
b)	<u>Mandatory spares for Pumps</u>		
i)	Impeller	set	7
	Hydrant Engine pump - 1set		
	Hydrant Main Pump - 1 set		
	Hydrant Jockey Pump - 1 set		
	Sprinkler Engine pump - 1 set		
	Sprinkler Main Pump - 1 set		
	Sprinkler Jockey Pump - 1 set		
	Emulsifire Engine Pump - 1 set		
ii)	Shaft	no	7
	Hydrant Engine pump - 1 No		
	Hydrant Main Pump - 1 No		
	Hydrant Jockey Pump - 1 No		
	Sprinkler Engine pump - 1 No		
	Sprinkler Main Pump - 1 No		
	Sprinkler Jockey Pump - 1 No		
	Emulsifire Engine Pump - 1 No		
iii)	Shaft Sleeve	nos	14
	Hydrant Engine pump - 2 Nos		
	Hydrant Main Pump - 2 Nos		
	Hydrant Jockey Pump - 2 Nos		
	Sprinkler Engine pump - 2 Nos		
	Sprinkler Main Pump - 2 Nos		
	Sprinkler Jockey Pump - 2 Nos		
	Emulsifire Engine Pump - 2 Nos		
iv)	Glands	nos	14
	Hydrant Engine pump - 2 Nos		
	Hydrant Main Pump - 2 Nos		

Sl. No	Description	Unit	Qty
	Hydrant Jockey Pump - 2 Nos		
	Sprinkler Engine pump - 2 Nos		
	Sprinkler Main Pump - 2 Nos		
	Sprinkler Jockey Pump - 2 Nos		
	Emulsifire Engine Pump - 2 Nos		
v)	Latern rings	sets	14
	Hydrant Engine pump - 2 sets		
	Hydrant Main Pump - 2 sets		
	Hydrant Jockey Pump - 2 sets		
	Sprinkler Engine pump - 2 sets		
	Sprinkler Main Pump - 2 sets		
	Sprinkler Jockey Pump - 2 sets		
	Emulsifire Engine Pump - 2 sets		
vi)	Bearings	sets	14
	Hydrant Engine pump - 2 sets		
	Hydrant Main Pump - 2 sets		
	Hydrant Jockey Pump - 2 sets		
	Sprinkler Engine pump - 2 sets		
	Sprinkler Main Pump - 2 sets		
	Sprinkler Jockey Pump - 2 sets		
	Emulsifire Engine Pump - 2 sets		
c)	<u>Hydrant / Sprinkler / Emulsifyre components:</u>		
i)	Hydrant lugs	sets	4
ii)	Hydrant valve (Double headed)	nos	9
iii)	Branch pipe	nos	11
iv)	15 Mtr hoses (63mm dia)	nos	4
v)	7.5 Mtr hoses (63mm dia)	nos	11
vi)	Pressure gauges	nos	3
vii)	Pressure switches	nos	2
viii)	Sprinkler bulbs	no	780
ix)	High velocity projectors	nos	20
x)	Glass bulb detectors	nos	20

Other spares

1	Dia 25mm Gun metal globe valve	5
2	Battery Hydro meter	1
3	Love Joy Coupling - jockey pump	1
4	Dia 20mm CI Ball valve	1
5	Coupling washer for hydrant valve	18
6	25MM SS needle valve Scrwd end	1
7	Water pump assmby for Sprinkler engine	1
8	HRC FUSES 10 Amps	2
9	HRC FUSES 6 Amps	2
10	HRC FUSES 4 Amps	2
11	HRC FUSES 2 Amps	2
12	130V/20MA bulb	4
13	25mm Hose clamp	5
14	Gun metal Gand nut	1
15	Bonnut washer	2
16	CTC (Cleaning agent)	1
17	25mm Hose reel spray nozzle	5

LIST –2

MINIMUM STOCK SPARES TO BE MAINTAINED BY CONTRACTOR

The selected Contractor has to maintained the following minimum qty spares at site

SI.No	Description	Quantity in Nos.
1	200mm dia Wafer typ Non return valve (Make: Inter valve)	1
2	150mm dia Wafer type non return valve (Make: Inter valve)	1
3	50mm dia Wafer type non return valve(Make: Inter valve)	1
4	150mm butterfly valve (Make: Audco)	1
5	Single headed hydrant valve (Make : New Age)	1
6	Main contactor – Jockey pump (make : L&T)	1
7	Main contactor – Main Pump (make : L&T)	1

Note: 1. The contractor minimum stock spares and TIDEL owned spares are indicated based on the previous experiences. If any spares are additionally required for regular operation and maintenance, the same to be procured and maintained by contractor.

2. All spares in the scope of contractor. Only Diesel and Lubricant oil for diesel operated pumps will be supplied by TIDEL.

INSURANCE POLICY DETAILS – MBD POLICY

TIDEL has taken Machinery Breakdown (MBD) for the Electro-Mechanical equipments. In case of any break down, TIDEL will make the eligible claim and pass on the claim amount, to the extent settled by the Insurance Company, subject to statutory deductions if any required from time to time. The Insurance premium paid by TIDEL for the package will be recovered from the quarterly bills submitted by contractor in equal installments in the same year. The Bidder has to factor the presence of MBD policy into account while quoting for this tender. The current insurance cover is valid up to **11.07.2012**. The policies will be renewed subsequently year after year without any break.

The copy of policies which have details of items covered, premium, sum insured, conditions, etc of the current year are enclosed herewith. However the tenderers have to consider the following for arriving at the yearly cost of premium during the entire contract period.

- To consider only OEM rates for arriving at the sum insured.
- Difference of cost between the amount to be settled by the insurance company and the actual cost of repairs including the labour and third party repair charges shall be borne by tenderers.
- The items to be covered by insurance in the existing policy will be continued unless TIDEL feels that this has to be changed for any reason it deems fit and TIDEL may consult P&FM in this regard and decide on this.
- As the insurance policies have to be taken on yearly basis for optimizing the premium, the tenderers shall consider applicable prorated premium in the first year of contract as well as last year considering the current year policy period.
- The combined MBD for all O&M packages will be taken by TIDEL and the premium shall be apportioned to the respective tenderers.
- TIDEL will have final say in deciding the Lead Insurer as well as the other participating Insurers and the Contractor will not have any say on this.
- The damaged equipment or parts which are left behind by insurance company shall be handed over to TIDEL.
- The tenderers shall include the price escalation factors when arriving at the premium for each year.
- At any time, the Contractor has to maintain the minimum stock of spares (List 2) and also to replenish the TIDEL owned spares (List 1) immediately without waiting for realization/settlement of Insurance claims.

RESPONSIBILITIES OF THE CONTRACTOR

- The repairs must be carried out immediately and shall not be linked with the claim settlement.
- The insurance coverage will not dilute the responsibilities of the Contractor towards O&CM and the Contractor will not get any claim for the items not covered in the Insurance Policy and the expenses on such items should be fully borne by the Contractor.
- TIDEL will not assume any responsibility for the full or part or delayed or non-settlement of the claim by the Insurance Company and will only act as a channel to forward/submit claim to the Insurance Company for the Break down and pass on the claim amount received to the Contractor.
- The Contractor is responsible for preparation of claim form with necessary support documents for TIDEL's approval through P&FM Contractor for submitting the same to the Lead Insurer.
- It the responsibility of the Contractor to coordinate with P&FM, Lead Insurer and surveyor for Claim processing.
- The tender shall submit a separate invoice for claim amount settled by Insurer to TIDEL.

THE CLAIM SETTLEMENT PROCEDURE IN THE MOU ENTERED BETWEEN THE INSURANCE COMPANY AND THE OWNER FOR THE CURRENT YEAR IS AS FOLLOWS:

CLAIM SETTLEMENT PROCEDURE

a) Method 1 - "Claim with-out bill for Material & Labour":

The Insurer hereby agrees not to call, for settlement of claims, any bills for labour, material etc, for claims made up to the total value of O&M charges paid/payable to the O&M Contractors of the respect packages from the date of first commencement of O&M contracts until expiry of this policy, reduced by the actual claim amounts received till the date of claims. This clause will survive any change in the existing O&M Contracts and entering into of new O&M Contracts by the Owner. It is hereby agreed that after expiry of the individual O&M Contract as detailed in Para 2 above, the total O&M contract amounts including the amount of new O&M Contracts (i.e. amount up to which the Owner is not liable to produce any bills for claim) will be intimated to the insurer. The following procedure is hereby accepted:

- i). After TIDEL lodges any claim under MBD, the nature of repairs can be verified at site by the surveyor(s) nominated by the insurance company.
- ii) a. **For Material Cost:** In respect of the cost of material, Original Equipment Manufacturer (OEM) prevailing cost or market rate shall be used as the basis for arriving at the material cost.
b. **For Labour Cost :**On completion of repairs by the O&M contractors, the nominated surveyors may verify the same and recommend the claim of Man Power Cost based on the Labour Utilization certificate and statement Furnished by the Owner / P & FM based on man-power rates attached herewith.

Documents prepared by the Owner /P&F M only will be provided for such claims.

THE FOLLOWING PROCEDURE IS HEREBY ACCEPTED FOR PREPARATION OF DOCUMENTS

- a) Owner / P&F M certify the utilization of man powers and materials based on O & M Contractor's breakdown report.
- b) OEM / Market rate prevailing at the time of replacement has to be considered for material cost.
- c) Owner / P & F M will provide a certificate on the salvage amount to be Considered based on the actual level of damage for the subject claim.
- d) Labour utilized (Man-Hours) report, containing all particulars of labour involved to rectify the repairs, certified by Owner / P&FM will be considered as proof for labour charges.
- e) Manpower rates for labour of O&M/ OEM staff (Furnished below), based on which labour claims will be charged by Owner / P&FM.

b) Method 2: Claim with Proforma invoices/Bills

In cases not falling under Clause 5(a), for any breakdown which calls for repairs and replacements of insured items, the Owner will submit Performa invoice / bills for claim processing.

c) Settlement Period:

All the settlement has to be made within 15 days from the date of receipt of documents submitted to the Insurer by the Owner / P&F M. The responsibility of collecting the surveyor's report is vested with insurer. For any delay beyond 15 days with-out assigning any reason(s), the prevailing State Bank of India Prime Lending Rate + 1% on the claim amount unsettled will be charged extra till the date of settlement.

d) Part payments:

On reporting of claim(s) by the Owner and once the claim is accepted by the surveyor as payable, 75% of amount has to be paid as an advance amount and the remaining amount to be paid as per Settlement Clause.

The Bill of Quantity of items covered will form part of the policy and the tariff rates indicated are the rates accepted by the Insurer. As these tariff rates are as per IRDA and TAC regulations, the Insurer will ensure that the claims will be processed without any conditions and the Owner is not responsible for any defect/error in the revised final rates quoted by the Insurer.

SELF ASSESSMENT

For claims up to Rs. 20,000, a self assessment by the Owner / P&FM is sufficient for processing claims.

DEPRECIATION AGAINST VARIOUS EQUIPMENTS:

The depreciation applicable for the various equipments will be decided by a Panel of Surveyor nominated by the Lead Insurer with the consent of the Owner, who will arrive at the maximum allowed depreciation rates based on the life of the equipments for each package. The panel will fix maximum allowed depreciation percentage and the nominated surveyor who investigates the claim can use this as a guide line. If the nominated surveyor feels/ desires, then he is permitted to apply a lesser percentage of depreciation but not exceeding the percentage fixed/ accepted in the MoU.

MAN POWER RATES FOR TIDEL OPERATIONS AS ON 01.01.2011

1. Wages for a normal working day (for during holiday / over time additional 50% Charged extra).
2. No partial day calculations are permitted like ½ day , 1 hour etc..
3. The rates are based on 01.01.2011 an additional 1.00% per Month will be added.

SL.NO.	Categories of work force	Per day minimum Man power rate as on 01.01.2011 in Rs
I. Mechanical, Electrical & Civil		
	O & M Manager	2037
	Service Engineer	1060
	Asst. Engineer	733
	Technician	408
	Supervisor	611
	Service Engineer (from OEM @ Rs. 7,000/ day, lodging , Boarding + Travel expenses of Indian origin)	21762
	Engineer / Specialist from abroad	At actual
	Craftsman like welder / sheet metal worker / Fitter / Plumber / Electrician / Carpenter / Draughtsman / Stone cutter / Mason / Security guard / Insulator store keeper etc.	459
	Casual Labour	366
II. Computer hardware / software		
	O&M Manager	2853
	Senior Engineer	2122
	Junior / Asst. Engineer	1467
	Technicians	816
	Supervisor	1223

The list will be updated periodically as and when a new set of group of tradesman identified

III Tools : Additional cost towards tools & tackles

1. For Hand Tools = add 5% of labour cost

2. For power Tools = add 7.5% on Labour cost
3. For Special Tools and Tackles = at actual

IV Common to all :

- a. For P&F Manager supporting services = add 10% on Labour + Tool cost
- b. For TIDEL management supervision charges : additional 15% of entire cost estimation

GENERAL INFORMATION ABOUT THE BUILDING

MAIN BUILDING

This Building Comprises of a Double basement and 13 floor super structure. Two Basements, Ground, First and Second Floors comprises of a horizontal base on which three towers of 10 floors rise above.

Two basements are used for car parking/two wheeler parking and housing some essential services like Fire pump rooms, communication rooms and electromechanical equipment rooms. The Ground and First floors are common areas and facilities like auditorium, Conference room, BSNL, VSNL, STPI offices, TIDEL BACKBONE, food outlets, Food court, Banks, ATM counters, Business promotional areas, commercial outlets, Local/STD PCO's. The Owner's office and the existing P&FM office is located at First floor A-Block North. In ground and first floor also office modules are there. Owner had proposed to convert the existing first floor restaurant area to a multi cuisine food outlets, dining hall for the occupants for their own food, fitness center and indoor games.

The Second Floor onwards House offices. The typical floors comprises of three blocks the large office, small office and medium office Blocks. The Large Office block is termed Tower A and is stand alone and can be divided into two modules each module has a dedicated lift bank of 4 lifts, Toilets AHU Rooms and Raiser shaft for services.

The Medium offices are in Block C and Small offices are in Block D and these blocks are separated by a atrium. These offices can also be sub-divided in to 2 modules each in C block and 4 modules each in D block. Towers C and D share a common back up of 5 lifts and have dedicated toilet blocks AHU rooms and raiser shafts for services.

Connecting Corridors are provided in different levels in north and south respectively to enable horizontal linkage between Block A and Block C. The External Cladding comprises of granite, Structural glazing and Aluminum Composite Panels:

SREVICE BUILDING:

The Service Building has equipment relating to electrical system, DG system and ACMV System. The Building is a Basement, Ground and one storeyed with floating floor structure.

The Basement has all the ACMV system equipment like PHE, Pumps, Panels and piping and electronic equipments. The Ground Floor has the transformers on one side (East) and DG sets on the other (west) .The DG set enclosure is a double height area. The transformer room ceiling has a floating slab above it and the space between is used to carry various cables. The First Floor houses the electrical MPCC panels. The main HT breakers and TNEB incoming breakers are in the ground floor.

Service building houses the Air conditioning chillers, which are placed on an RCC beam, structure above the Terrace slab. There is a chequered plate platform here to access the chillers. Expansion tanks are located over the staircase headroom Two stairs are provided on the North & South respectively.

The DG set's FGD system and stacks are located on RCC platform which are part of the service building on the north west and south west sides respectively.

SYSTEM DESCRIPTION

I. WET RISER CUM DOWN COMER SYSTEM WITH YARD HYDRANTS INCLUDING HOSE REELS IN ALL THE FLOORS

1. This system consists of the following pump sets installed as under.

IN THE 2ND BASEMENT LEVEL

- a) 850 Ltr / Min Main Pumpset (Electrical Driven) : 1 No.
- b) 2850 Ltr / Min Standby Pumpset (Diesel Driven) : 1 No.
- c) 180 Ltr / Min Jockey Pumpset (Electrical Driven) : 1 No.

AT THE TERRACE LEVEL

- a) 450 Ltr / Min Terrace Pumpset (Electrical Driven) : 2 Nos.

2. Pump sets located at 2nd basement are take suction from the U.G. Sump which houses 6.15 lakh litres exclusive for Fire fighting out of its total capacity of 23.00 lakh ltrs. The deliveries of the pumps is connected to the manifold and from this manifold a ring main is formed around the building. From this ring main, tapings are taken and run as risers upto the terrace level.
3. Each tower (i.e tower A & tower CD) is have provision for 50,000 ltrs capacity of water in two tanks which is interconnected . There is totally 9 risers out of which tower A is have 3 risers & tower CD is have 6 risers with ring mains at respective towers. Two terrace lvl. Pumps one at tower A & other at tower CD are located near the tanks. These pumps are take suction from the respective tanks & the delivery is connected to the ring mains formed at the terrace level.
4. In each floors tapings are taken from the risers and a double headed hydrant valve and a hose reel containing 30mtr of 19mm dia hose is taken. Also 2 nos. of 7.5 mtr of 63 mm dia hoses with couplings and branch pipe is installed near each double headed hydrant valve. In the ring main around the building at every 30mtr interval, standpost is installed and in each standpost is have one single headed hydrant valve.

Each standpost is have hose box containing 2 nos. of 15mtr of 63 mm dia hoses and branch pipe. The whole system can be kept either in auto or manual mode. When the system is under auto mode, the pump will automatically starts and when the pressure is reduced in the pipe line. When the sytem is in the manual mode, somebody has to go and start the pumps manually. In both the system, stopping of the pumps will be by manually only.

II. SPRINKLER SYSTEM:

1. The Sprinkler System consists of the following pumpsets installed as under.

AT THE 2ND BASEMENT LEVEL:

- a) 2850 Ltr / Min Main Pumpset (Electrical Driven) : 1 No.
 - b) 2850 Ltr / Min Standby Pumpset (Diesel Driven) : 1 No.
 - c) 180 Ltr / Min Jockey Pumpset (Electrical Driven) : 1 No.
2. Pump sets located at 2nd basement are take suction from the U.G. Sump which houses 6.15 lakh litres exclusive for Fire fighting out of its total capacity of 23.00 lakh ltrs. The deliveries of these pumps are connected to the manifold. Further risers of 6 Nos. are taken at different locations in the building. From these risers network of piping is laid in each floor and sprinklers are installed.

III. PORTABLE EXTINGUISHERS:

Portable Extinguishers of the following types are installed:

- a) Dry Chemical Powder type.
- b) Dry chemical powder type (ABC type)
- c) CO₂ type
- d) Foam type

1) DRY CHEMICAL POWDER TYPE:

The Dry chemical powder type of 5 kg. capacity and have the IS mark 2171 complete with powder and charged, including with fixing bracket, fitted with gunmetal cap, and discharge hose and open grip nozzle.

2) DRY CHEMICAL POWDER (ABC POWDER TYPE):

The above Extinguisher is conforming to IS:13849. The Extinguisher is ABC type powder pressurised with dry nitrogen fitted with squeeze type valve assembly pressure gauge, discharge nozzle and mounting bracket.

3) CO₂ TYPE:

- a) The CO₂ Extinguisher is ISI mark, charged with high pressure cylinder complete with wheel type valve, internal discharge tube, high pressure discharge hose with horn and suspension brackets. The extinguisher is have ISI mark of 2878 and capacity is 4.5 Kgs.
- b) The CO₂ Extinguisher of 22.5 Kg capacity is have ISI mark 2878 and wheel valve, discharge hose and mounted on light weight rubber tyre wheels.
- c) The Co2 Fire Extinguishers of capacity 2Kgs consisting of High pressure seamless cylinder (IS:7285) and duly approved by controller of explosive, Nagpur, filled with Wheel type valve (IS:3224) fully charged with Co2 Gas with non conductor electricity discharge PVC horn along with bend pipe, internally siphon and mounting brackets Make:KANEX.

4) FOAM TYPE:

- a) The foam extinguishers of 9 Ltrs. are with solution of 6% concentration with CO₂ gas cartridge for making and exploring the foam compound with discharge hose and nozzle, upright type with IS:10204.
- b) The 50 Ltr. Foam extinguishers are with IS:5507 complete with gunmetal cap, discharge hose, mounted on trolley.

IV. EMULSIFYRE SYSTEM FOR INDOOR TRANSFORMERS:

This system is provided for the oil filled transformers installed in the ground floor of the sub-station building. This system consists of one number main diesel driven pumpset of capacity 1620 Ltrs/min and installed in the second basement along with other hydrant / sprinkler pump sets. The suction is connected from the suction manifold coming from the U.G. Sump and the delivery is taken to the sub-station area. Piping is tapped from this delivery header to deluge valves, which is installed near to the transformer room. From each deluge valve, for each transformer, further piping is taken and ring mains formed around the transformers. There is two ring mains for detection bulbs and two ring mains for water spraying. In the detection line glass bulbs rated 79 deg C. are installed and in the water sprayer water projectors are installed. The detection system is pressurised with water and also the entire system upto the Deluge valve is pressurised. Whenever the transformer is under fire, glass bulbs in the detection line will break reducing pressure and thereby opening the deluge valve. Once the deluge valve is opened, water with high pressure will enter into the water sprayer line and further water will be sprayed over the transformer.

Also there is a Annunciator panel at the pump house. All the deluge valves is electrically connected to this Annunciator panel. This will enable deluge valve to open from the local control panel in case of emergency. The local control panel have battery back up and in case of power failure this battery backup will takes over the system.

SCOPE OF WORK

1. The selected contractor shall carry out the comprehensive operation and maintenance of fire protection system equipments from 1st January 2012 to the end of the contract period for three years. The list of equipments is attached in the tender document.
2. Operation of Fire Hydrant, Sprinkler and Emulsifier systems as per OEM recommendations and maintain system pressure of 10.5 kg./Sq.cm at pump room level.
3. Logging and Monitoring of required parameter values of various equipments enlisted.
4. Planned Preventive Maintenance (PPM) to be done as per schedules / checklists for FPS equipments and carrying out the PPM activities as per the Schedule / Checklist. The checklist are updated based on OEM/TIDEL recommendations
5. Submission of Completed PPM checklists/ Work orders and daily, weekly and monthly reports to TIDEL or P&FM
6. Carrying out Preventive / Breakdown Maintenance of Fire Hydrant, Sprinkler and Emulsifier systems as per OEM recommendations/ PPM Checklists given by TIDEL. . In addition to the PPM, checklists and schedules if any other aspect to be checked, maintained then the same to be included for proper performance of the system to the complete satisfaction of TIDEL.
7. Logging and Monitoring of required parameter values during PPM of various equipments as enlisted above and maintaining the same within limits.
8. Trouble-shooting of equipment related problems by carrying out necessary rectification /replacement and putting back the equipment into operation within the stipulated time.
9. Checking the sound levels (dB) of various equipments on a predetermined frequency basis and maintaining the same within requirements by carrying out necessary repairs/rectifications.
10. Generating spare consumption reports on a monthly basis and submitting to TIDEL
11. Periodically carrying out painting of Equipments/ pipe lines/ Hydrants post/Pipe shaft platforms as and when they get damaged / peeled off as per IS standards.
12. Reporting of breakdowns /abnormalities to TIDEL
13. Maintaining of minimum critical spares as per minimum stock list given in Annexure I (List-1) of Volume I tender document.
14. Condition Monitoring of Equipments and maintaining the parameters under control by carrying out necessary repairs / replacement.

15. The selected contractor will operate, manage and maintain the system to suit the Owner's requirements for the whole of the Contract Period
16. The selected Contractor shall undertake to carry out the Works in such a manner as to ensure that the FPS system and equipment are fully functional and performing.
17. The selected contractor will ensure that there is available at all times a stock of sufficient spare parts for all equipment to ensure that the Contractor is able to carry out the Works and to ensure that the system is not out of service for a period in excess of ten (10) consecutive hours and the repairs are carried out in a reasonable time.
18. The Contractor will permit the TIDEL to carry out inspection and review of spare parts stocks at least quarterly at which time the spare parts requirement will be reviewed.
19. The Contractor will refer all operational and maintenance management issues for consideration and decision to the Owner
20. The primary purpose of carrying out the Works is to ensure that the best standards are maintained at all times round the year for the entire contract period.
21. A further purpose of carrying out the Works is to ensure that all plant and equipment to be maintained under terms of this contract are maintained to a standard that will ensure that at the end of the Contract Period all the plant and equipment should be handed over in a satisfactory working condition.
22. All parts used in maintenance and repair of the proprietary Fps system and ancillary equipment must either be manufactured by original equipment manufacturers or approved in writing for use in the equipment by original equipment manufacturers and no other parts may be used in maintenance and repair of the FPS system and ancillary equipments. However, IS or other International Standards approved parts of non-proprietary items can be used.
23. The equipment to be operated and maintained by the Contractor is contained in the Equipment Schedule
24. The Contractor will operate and maintain the equipment and system daily in accordance with Original Equipment Suppliers operation and maintenance specifications as a minimum requirement, and Standard Operating Procedures (SOP) .
25. The Contractor will carry out routine checks to ensure continuous and efficient operation of the equipment and system
26. Daily Operation and Maintenance of the equipment will include routine check up of and adjustment to the equipment preventive maintenance works and management of any breakdowns.

27. The Contractor will maintain log books and registers in which full and detailed records of all daily operational maintenance and repair activities will be kept to provide a basis for preparation of periodic reports by the Contractor as required to the TIDEL
28. O&M contractor is responsible for round the clock operation of the entire system and all the operation and maintenance shall be performed by suitably trained and qualified personnel.
29. Clearing debris after maintenance works to be carried out by contractor
30. Responsibility for care of the Plant shall rest with the selected contractor.
31. The selected contractor shall submit daily, weekly, monthly and annual reports as required by the TIDEL
32. Any breakdown, loss of material or damage to the Plant as a result of negligent activity on the part of the Contractor shall be deemed to be unsatisfactory performance and must be immediately repaired to the proper condition.
33. The selected contractor shall co-ordinate with P&FM for carrying out the fire simulation test by zones wise with help of IBMS package and security personnel by weekly basis. After testing the equipments should be kept in normal operation and report should be submitted to TIDEL or P&FM If any malfunctioning is found in any equipments, the same should be corrected by the selected contractor.
34. The required water will be supplied by TIDEL and other than the above all the consumables and spares are in the scope of contractor.
36. The selected contractor shall bring necessary tools, tackles, vibration monitoring equipments and measuring equipments, for efficient operation and maintenance of entire FPS system
37. During annual maintenance period/ major breakdowns the selected contractor shall provide additional man power, tools, tackles etc. to manage the above in time.
38. As and when used, expired and pressure dropped fire extinguishers has to be refilled by the contractor. The approved sub contractor for refilling Steelage Industries Limited / Safex Fire services Limited / Vijay Industries and Projects Limited. Contractor will claim the payment on quarterly basis along with operation and maintenance charges as per unit rate of respective type fire extinguishers in volume of Tender document for actual quantity.
39. The scope of work other than the above also mentioned in any where in the tender document is applicable during contract period.
40. The contractor shall co-ordinate with P&FM during Department of Fire Service of TamilNadu inspection.
41. Annual Maintenance related works to be planned in advance and to be carried out, after obtaining prior approval from Owner/P&FM.

42. All measuring instruments (Energy meters, Voltmeters, Ammeters, pressure gauges, etc.) shall be tested and calibrated once in a year for ensuring correctness of measurements and report to be submitted. The scope includes repairs and replacement of the defects instruments.
43. Under the Comprehensive Maintenance contract, the contractor shall be responsible for all regular, preventive and breakdown maintenance of all equipments. However the cost of all consumables required for the scope of work mentioned above will be borne by the contractor

TECHNICAL SPECIFICATION FOR MAJOR EQUIPMENTS

I. MAIN PUMPSETS

A PUMPS

1	Installed Nos.	:	4 (2nos for diesel engine operated and 2 Nos for electrical motor operated) (Each one for hydrant and sprinkler system)
2	Delivery - Cmh	:	171
3	Head - m	:	105
4	No. of stage	:	One
5	Type of pumpsets	:	Horizontal End Suction Centrifugal
6	Make	:	Kirloskar
7	Pump motor speed - rpm	:	Motor driven – 2950 Engine driven – 2000
8	Casing	:	Cast Iron, IS:210, Gr 260
9	Impeller	:	Bronze IS: 318, Gr LTB2
10	Wearing Rings	:	Bronze
11	Shaft Sleeve	:	S/S Type AISI 410
12	Shaft	:	SS AISI 410

B MOTOR

1	Installed Nos.	:	2 (each one for hydrant and sprinkler systems)
2	Motor – KW	:	90
3	Make	:	Crompton Greaves
	Type of pump motor	:	TEFC insulation Class 'F' and temperature raise restricted class 'B' IP54 motor - energy efficient
5	Type of starter	:	DOL
6	Motor mounting	:	Directly coupled
7	Power supply	:	415V, 3 Ph AC, 50Hz.
8	RPM	:	2900

C DIESEL ENGINE

1	Installed Nos.	:	2 (each one for hydrant and sprinkler systems)
2	Make	:	Cummins
3	HP	:	96.43
4	RPM	:	2000
5	Model	:	water cooled
6	Fuel	:	HSD
7	Auto speed Governing	:	Provided
8	Starting	:	Eclectically driven
9	Battery with charger	:	2 rate trickle charger with manual selection on boost charge

II **JOCKEY PUMPSETS:**

A **PUMPS**

1	Installed Nos.	:	2	(Each one for hydrant and sprinkler system)
2	Delivery - Cmh	:	10.8	
3	Head - m	:	105	
4	No. of stage	:	One	
5	Type of pumpsets	:	Horizontal End Suction Centrifugal	
6	Make	:	Kirloskar	
7	Casing	:	Cast Iron, IS:210, Gr 260	
8	Impeller	:	Bronze IS: 318, Gr LTB2	
9	Wearing Rings	:	Bronze	
10	Shaft Sleeve	:	S/S Type AISI 410	
11	Shaft	:	SS AISI 410	

B **MOTORS**

1	Installed Nos.	:	2	(Each one for hydrant and sprinkler system)
2	Motor – KW	:	18.5	
3	Make	:	Crompton Greaves	
4	Type of pump motor	:	TEFC insulation Class 'F' and temperature raise restricted class 'B' IP54 motor - energy efficient	
5	Type of starter	:	DOL	
6	Motor mounting	:	Directly coupled	
7	Power supply	:	415V, 3 Ph AC, 50Hz.	
8	RPM	:	2900	

III **EMULSIFYRE PUMPSET:**

A **PUMP**

1	Installed No.	:	1	
2	Delivery - Cmh	:	97.2	
3	Head - m	:	70	
4	No. of stage	:	One	
5	Type of pump	:	Horizontal End Suction Centrifugal	
6	Make	:	Kirloskar	
7	Casing	:	Cast Iron, IS:210, Gr 260	
8	Impeller	:	Bronze IS: 318, Gr LTB2	
9	Wearing Rings	:	Bronze	
10	Shaft Sleeve	:	S/S Type AISI 410	
11	Shaft	:	SS AISI 410	

B **ENGINE**

1	Installed Nos.	:	1	
2	Make	:	Kirlosker	
3	HP	:	39.31	
4	RPM	:	2000	
5	Model	:	water cooled	
6	Fuel	:	HSD	
7	Auto speed Governing	:	Provided	
8	Starting	:	Eclectically driven	
9	Battery with charger	:	2 rate trickle charger with manual selection on boost charge	

IV TERRACE PUMPSETS:

A PUMPS

1	Installed Nos.	:	2
2	Delivery - Cmh	:	27
3	Head - m	:	40
4	No. of stage	:	One
5	Type of pumpsets	:	Horizontal End Suction Centrifugal
6	Make	:	Kirloskar
7	Casing	:	Cast Iron, IS:210, Gr 260
8	Impeller	:	Bronze IS: 318, Gr LTB2
9	Wearing Rings	:	Bronze
10	Shaft Sleeve	:	S/S Type AISI 410
11	Shaft	:	SS AISI 410

B MOTORS

1	Installed Nos.	:	2
2	Motor – KW	:	5.5
3	Make	:	Crompton Greaves
4	Type of pump motor	:	TEFC insulation Class ‘F’ and temperature raise restricted class ‘B’ IP54 motor - energy efficient
5	Type of starter	:	DOL
6	Motor mounting	:	Directly coupled
7	Power supply	:	415V, 3 Ph AC, 50Hz.
8	RPM	:	2900

V CONTROL PANEL FOR THE MAIN PUMPSET & JOCKEY PUMPSET:

The starting switch gear for the electrical driven pumpsets are direct on line starting.

The control circuit for the main electrical pumpset is designed for automatic operation i.e., whenever the pressure reduces in the system, the pumps shall automatically starts. The stopping of the pumps is ‘Manual’.

The control circuit for the jockey pumpset is designed that whenever pressure reduces the pump shall start automatically and when pressure reaches rated system pressure then it should automatically switched OFF.

Auto/Manual switch shall be provided for both the Main & Jockey pumpset so that the pumpsets can be started/stopped Manually also.

VI AUTO START CONTROL PANEL FOR DIESEL ENGINE:

The Auto-start control panel is have the following:

- i. Auto/Manual selector switch for pumpset.
- ii. Manual start/stop push button.
- iii. Indicating lamps showing power is on and run/stop.
- iv. Voltmeter/Ammeter in battery charging circuit.

The Auto Start panel is have both trickle & Boost charger to charge the batteries.

VII

HYDRANT COMPONENTS:

HYDRANT VALVE:

- a. Hydrant valve is single headed/double headed with 75 mm NB flanged inlet, 63 mm female inst. oblique outlet as per IS specification
- b. The material of construction shall be as follows:
 - i. Body : Gunmetal.
 - ii. Trim : Leaded tin bronze as per IS:318, Grade-2.
 - iii. Hand Wheel : Cast Iron FG 200 as per IS:210.
 - iv. Washer,Gasket., : Rubber as per IS:638.
 - v Quick coupling connection : Leaded tin bronze as per IS:318. Grade-2.
 - vi. Spring : Phosphor Bronze as per IS:7608.
 - vii. Male Blank cap. : Leaded tin bronze as per IS:318. Grade-2.
 - viii. Chain : G.I.

BRANCH PIPE:

Branch pipe is of gunmetal short, 63 mm male instantaneous inlet, made threaded outlet, 20 mm bore nozzle with IS mark of 903 and TAC approval.

HOSES:

Hoses is of Cotton/Synthetic fiber, circular woven jacketed, treated against rot,35.7 Kg/Sq.cm. burst pressure, 36 Kg/Sq.cm. proof pressure, all conforming to IS:8423

HOSE REEL:

- i) Hose reel have type 'A', wall mounting type, swinging complete with 19 mm bore, high pressure braided rubber hose 30 M long, 6 mm bore shut off nozzle and 25 mm inlet valve, confirming to IS:884.
- ii) Piping connection for the hose reel is taken from the main riser above the landing valve.

HOSE BOXES:

Hose boxes is made of 18 gauge MS sheet with double door with glasses, lock, 2 keys and a break glass, recess for keys, painted in fire red. The hose box is painted fire red outside and brilliant white inside. These hose boxes are accommodate 2 nos. of 15 mtr. long hoses and a branch pipe.

Fire Brigade inlet for the risers have two instantaneous pattern of 63 mm dia valve, with non-return valve, manifold in a MS enclosure with glass fronted lockable doors.

FLOW SWITCHES:

The flow switches are of rugged construction and is used to give indication of flow in the pipeline and hereby actuating the limit switch. The measuring system has a hinged measuring disc moving freely in the axis of the conical tube. At flowing conditions, the system adjust to that the force acting on the disc is in equilibrium with the spring force. A built in magnet transmit the disc position to the indicator and simultaneously activate the limit switches.

VIII ANNUNCIATOR:

An alarm Annunciator with 120 annunciator windows is provided in the pump house for indication of sprinkler status in all the floors. This Panel is connected to the floor for getting annunciation. This panel is fabricated out of sheet metal and The panel is battery back up and also have battery charger, both trickle and boost.

The panel is have testing facilities and accept/reset facility. Whenever indication given to the Panel, the panel is have audio and visual signal.

IX DELUGE VALVE:

Deluge Valve is a quick release, hydraulically operated diaphragm actuated valve type. It has three chambers, isolated from each other by the diaphragm operated clapper and seat seal. In the set position, water pressure is transmitted through an external by-pass check valve and restriction orifice from the system supply side to the chamber, so that the supply pressure in the top chamber acts across the diaphragm operated clapper holding the seat against the inlet supply pressure because of the two-to-one differential design. On fire detection the top chamber is vented to atmosphere through the outlet port via opened actuation devices. The top chamber pressure cannot be replenished through the restricted inlet port, thus it reaches less than half the supply pressure instantaneously and the upward force of the supply pressure lifts the clapper allowing water to enter the system piping and alarm devices. Deluge valve is supplied with wet pilot trim.

LIST OF EQUIPMENTS

FIRE PROTECTION SYSTEM

Sl. No	Description	Qty	Unit	Make
HYDRENT SYSTEM				
1	MAIN FIRE PUMPSET			
a	Horizontal end suction centrifugal pump with bronze impeller cast iron body rated 171CMH at 105 MWC,2900RPM complete with coupling and coupling guard	1	No	Kirlosker
b	Electric Motor 120 HP,TEFC 2900 RPM,suitable for 440V,AC,3 Phase,50HZ	1	No	Crompton Greaves
c	Base Frame Made of MS channel to accommodate the above pump and motor complete with foundation bolts,pedestals and allied civil works	1	No	
2	STANDBY PUMP SET			
a	Horizontal end suction centrifugal pump with bronze impeller cast iron body rated 2850 lpm at 105 MWC,1500RPM complete with coupling and coupling guard	1	No	Kirlosker
b	Diesel engine to drive the above pump complete with the following			
	Diesel Engine	1	No	Cummins
	Diesel Oil Tank necessary piping , supports, piping and valves with level indicator	1	No	
	Exhaust piping,with necessary fittings,supports,insulation etc.100 mm dia	23	Mtrs	
	Batteries of required Amp.hr.including Battery Terminal & box (2 Nos of 12 Volts)	2	Sets	
	Cooling Water line for the engine with pipe / valve etc	1	No	
	Base Frame Made of MS channel to accommodate the above pump and motor complete with foundation bolts,pedestals and allied civil works	1	No	
3	JOCKEY PUMPSET			
a	Horizontal end suction centrifugal pump with bronze impeller cast iron body rated 180 lpm at 105 MWC,2900RPM complete with coupling and coupling guard	1	No	Kirlosker
b	Electric Motor 120 HP,TEFC 2900 RPM,suitable for 440V,AC,3 Phase,50HZ	1	No	Crompton Greaves
c	Base Frame Made of MS channel to accommodate the above pump and motor complete with foundation bolts,pedestals and allied civil works	1	No	

Sl. No	Description	Qty	Unit	Make
4	TERRACE LEVEL PUMPSET			
	Horizontal end suction centrifugal pump with bronze impeller cast iron body rated 450 lpm at 40 MWC,2900RPM complete with coupling and coupling guard	2	Nos	Kirlosker
5	Motor Control Centre suitable for DOL starter Isolator switch, Ammeter, voltmeter, Selector Switch, Indicating lamps etc.for the following pump			Crompton Greaves
a	120 HP	1	No	
b	25 HP	1	No	
6	Motor Control Centre suitable for DOL starter including push button station with Isolator switch, Ammeter, voltmeter, Selector Switch, Indicating lamps etc.for the Terrace Level pump	2	Nos	
7	Auto start panel for the diesel Engine complete with Auto/Manual Switch, indication lamps, protective fuses with battery charger, suitable of working of 230 volts AC single phase, enclosure being vermin & dust proof	1	No	
8	CABLE / EARTHING / CABLE TRAY			
a	ARMOURED CABLE FOR INSIDE THE PUMP HOUSE			
	3C x 185 Sq.mm A1 Armoured Cable	24	MTRS	
	3C x 25 Sq.mm A1 Armoured Cable	24	MTRS	
	10C x 2.5 Sq.mm A1 Armoured Cable	9	MTRS	
	2C x 15.5 Sq.mm A1 Armoured Cable	58	MTRS	
	4C x 1.5 Sq.mm A1 Armoured Cable	437	MTRS	
b	Earthing of the Electrical Motor / MCC and Auto Start panel with copper flat	63	MTRS	
c	Cable Tray for taking the cble for the equipments	125	MTRS	
9	MS PIPES AS PER IS:3589 / 1239 WITH HEAVY CLASS FITTINGS. GASKETS. BOLTS / NUTS ETC			
a	400 mm dia,7.9 mm thickness	119	Mtrs	
b	250 mm dia,6.4 mm thickness	4	Mtrs	
c	200 mm dia,6.2 mm thickness	889	Mtrs	
d	150 mm dia,Medium Class	1570	Mtrs	
e	100 mm dia,Medium Class	541	Mtrs	
f	80 mm dia,Medium Class	481	Mtrs	
h	25 mm dia,Medium Class	279	Mtrs	
10	Coating & Wrapping Materials	672	Sq.Mtr	
11	VALVES WITH NECESSARY FLANGES GASKETS,NUT & BOLT OF THE FOLLOWING			
a	400 mm dia Butterfly Valve	4	Nos	Inter valve
b	250mm dia butterfly valve	2	Nos	Inter valve
c	200mm dia butterfly valve	17	Nos	Inter valve
d	150mm dia Butterfly valve	15	Nos	Inter valve
f	80mm dia Butterfly valve	17	Nos	Inter valve
g	65mm dia Butterfly valve	3	Nos	Inter valve

Sl. No	Description	Qty	Unit	Make
h	50mm dia Butterfly valve	4	Nos	Inter valve
i	25mm dia Globe Valve	139	Nos	Inter valve
j	200m dia Wafer type Non return valve	9	Nos	Inter valve
l	65mm dia Wafer type Non Return valve	2	No	Inter valve
m	50mm Dia Wafer type Non return valve	4	Nos	Inter valve
n	50mm dia Air release valve	9	Nos	
12	HYDRANT COMPONENTS :			
a	Single headed , Gunmetal Hydrant valve ,Oblique type 3mm dia with flanged inlet with ojank cap & chain as per IS : 5290 with ISI Mark	29	Nos	New Age
b	Double headed hydrant valve morries pattern type with flanged inlet. Blank cap and chain	140	Nos	New Age
c	Branch pipe, Gunmetal short with 63mm dia instantaneous inlet. Complete with hexagonal nozzle, heavy quality as per IS: 903 with ISI mark	169	Nos	New Age
d	63mm dia C.P. Hose to IS-8423 with ISI mark including heavy quality gunmetal couplings			
i	15mtr Length	60	Nos	New Age
ii	7.5Mtr length	278	Nos	New Age
e	Hose reel, swinging, wall mounting tye, complete with 30Mtr long 19mm bore, high pressure braided rubber hose with 6mm bore shut off nozzle as per IS:884	139	Nos	New Age
g	Hose Tray made of MS Steel to accommodate 2Nos of hoses and the 1 No Branch pipe	139	Nos	New Age
h	Hose box made of 18 gauge MS sheet of size : 750x600x250 mm with glass fronted door, with glass fronted door, painted red out side, white inside	30	Nos	New Age
i	Siamese connection with 4 instantaneous pattern 63mm dia with 4Nos Non return valve and cap with chain complete with butterfly valve . The manifold shall be mounted in a mild steel cabinet of 14SWG with Glass fronted door	9	Nos	New Age
j	Fire Brigade inlet connection to the underground tanks comprising 4 instantaneous 63mm dia inlets . The manifold shall be mounted in a Mild steel cabinet of 14 SWG front door	1	Nos	New Age
13	TEST ARRAY			
a	Test Array arrangements with 1 No of pressure gauges with 1 No of pressure switches including necessary valves, pipes etc.	9	Set	
14	M.S.Supports for the aboveground M.S. Pipe made of "L" angle/ "U" clamps etc	591	Nos	
15	Painting of above ground MS pipes with two coats of Enamel paint (fire red) with minimum thickness of 75 microns	1296	Sqm	
16	Excavation and back filling of earth for in soft soil	2035	CuM	
17	Valve chamber	10	Nos	

Sl. No	Description	Qty	Unit	Make
18	Thrust Block made of PCC of Approximate size of 600 x 600 x 600 for the underground MS pipes	20	Nos	
19	Orifice Plates made of Stainless steel	110	Nos	
B SPRINKLER SYSTEM				
1 MAIN FIRE PUMPSET :				
a	Horizontal end suction centrifugal pump with Bronze impeller cast iron body rated 2850 LPM at 105 MWC, 2900 RPM complete with coupling guard	1	No	Kirlosker
b	Electric motor 120HP, TEFC 2900 RPM , suitable for 440V, AC, 3 Phase , 50HZ	1	No	Crompton Greaves
c	Base frame made of MS channel to accommodate the above pump and motor complete with foundation bolts, pedestals & allied Civil works etc. complete	1	No	
2 STANDBY FIRE PUMPSET :				
a	Horizontal end suction centriugal pump with Bronze impeller cast iron body rated 2850 LPM at 105 MWC , 1500 RPM to 2200 RPM complete with coupling and coupling guard	1	No	Kirlosker
b	Diesel engine to drive the above pump complete with the following.			
i	Diesel Engine	1	No	Cummins
ii	Diesel oil Tank necessary fitting, supports, piping & valves, with level indicator	1	No	
iii	Exhaust piping, with necessary fitness, supports, insulation etc, 90mm dia	19	Mtr	
iv	Batteries of reured Amp.hr including battery Terminal & box (2 nos of 12 volts)	2	Sets	
v	Cooling water line for the engine with pipe / valve etc.	1	Set	
c	Base frame made of MS channel to accommodate the above pump and engine complete with foundation bolts. Pedestals & allied Civil works etc . complete	1	No	
3 JOCKEY PUMP				
a	Horizontal End suction centrifugal pump with Bronze impeller Cast iron body rated 180 LPM at a head of 105 MWC, 2900 RPM complete with coupling & coupling guard	1	No	Kirlosker
b	Electric Motor 25 HP, TEFC 2900 rpm suitable for 440 V AC, 3 phase , 50 HZ	1	No	Crompton Greaves
c	Base frame made of M.S. channel to accommodate the above pump and motor complete with foundation bolts, Pedestals & allied Civil works etc complete.	1	No	
4	Motor control centre suitable for Dol starter Isolater switch, Ammeter. Volt meter, selector switch, indicating lamps etc., for the following pump			

Sl. No	Description	Qty	Unit	Make
a	120 HP	1	No	
b	25HP	1	No	
5	Auto start panel for the Diesel Engine complete with Auto/ Manual switch, indicating lamps . Protective fuses with battery charger. Suitable of working of 230V A.C single phase , enclosure being vermin & dust proof	1	No	
6	CABLE/ EARTHING/ CABLE TRAY			
a	ARMOURED CABLE FOR INSIDE THE PUMP HOUSE			
i	3C x 185 Sq.mm Al.Armoured Cable	19	Mtr	
ii	3C x 25 Sq.mm Al.Armoured cable	19	Mtr	
iii	10 x 2.5 Sq.mm Copper Armoured Cable	11	Mtr	
iv	2C x 1.5 Sq.mm Copper Armoured cable	3216	Mtr	
v	12C x 1.5 Sq.mm copper armoured cable	1910	Mtr	
b	Earthing of the Electrical Motor / MCC and Auto start panel with copper flat	58	Mtr	
c	Cable Tray for taking the Cable for the equipments	135	Mtr	
7	ABOVE GROUND MS PIPES AS PER IS : 3589/ 1239 WITH HEAVY CLASS FITTINGS , GASKETS, BOLT/NUT.ETC			
a	250mm dia, 6.4mm thickness	4	Mtr	
b	200mm dia , Heavy Class , 6.2mm thick	506	Mtr	
c	150mm dia, Heavy class	261	Mtr	
d	100mm dia , Heavy class	1033	Mtr	
e	80mm dia Heavy class	1028	Mtr	
f	65mm dia Heavy class	4995	Mtr	
g	50mm dia Heavy class	2072	Mtr	
h	40mm dia Heavy class	3304	Mtr	
i	32mm dia , Heavy class	7323	Mtr	
j	25mm dia Heavy class	18145	Mtr	
8	VALVES WITH NECESSARY FLANGED GASKETS, NUT & BOLT OF THE FOLLOWING SIZES :			
a	250mm dia Butterfly valve	2	Nos	Inter valve
b	200mm dia Butterfly valve	8	Nos	Inter valve
d	50mm dia Butterfly valve	4	Nos	Inter valve
e	25mm dia , Globe valve	90	Nos	Inter valve
f	200mm dia Wafer typ Non return valve	2	Nos	Inter valve
h	50mm dia Wafer type non return valve	4	Nos	Inter valve
i	50mm dia Air release valve	6	Nos	Inter valve
g	Qaurzoid bulb sprinkler pendent type rated for 68 Deg. C with reducer & Roset	8227	Nos	Sparysafe
10	Flow switch to indicate the flow of water in the pipe	90	Nos	

Sl. No	Description	Qty	Unit	Make
11	Alarm indicator Annunciation Panel of 120 Zones	1	Nos	
13	MS Supports for above ground MS Pipes made of "L" Angle/MS Plate/Uclamps, etc.,	12663	Nos	
14	Painting of above ground MS pipes with one coat of metal primer and two coats of fire red enamel paint.	6175	Sqm	
15	Orifice plate made of stainless steel.	24	Nos	
C. PORTABLE EXTINGUISHERS:				
1	Dry chemical powder fire extinguisher 5 Kg. capacity as per IS: 2171 with ISI mark complete all accessories.	114	Nos	Minimax/ firequip
2	Dry chemical powder (ABC) type extinguisher 5 Kg. capacity conforming to IS: 13849 complete with all accessories.	593	Nos	Minimax/ firequip
3	CO2 fire extinguisher 4.5 Kg. capacity as IS:2878 with ISI mark complete with all accessories.	111	Nos	Minimax/ firequip
4	CO2 Fire Extinguisher 22.5 Kg. capacity as per IS: 10204 with ISI mark complete with all accessories.	6	Nos	Minimax
5	CO2 Fire Extinguisher 22.5 Kg. capacity as per IS: 10204 with ISI mark complete with all accessories.	14	Nos	Kanex
6	Foam type extinguisher 9 Ltr. Capacity as per IS: 10204 with ISI mark complete with all accessories.	16	Nos	Minimax
7	Foam type extinguisher 50 Ltr. Capacity as per IS: 5507 with ISI mark complete with all accessories.	4	Nos	Minimax
8	CO2 fire extinguisher 2 Kg. capacity as IS:7285 with ISI mark complete with all accessories.	10	Nos	Kanex
D. EMULSIFIRE SYSTEM FOR INDOOR TRANSFORMERS:				
1 MAIN PUMPSET:				
a	Horizontal end suction centrifugal pump with bronze impeller with cast iron body rated 1620 ltrs/min at 70 MWC, 1800 RPM complete with coupling guard.	1	Nos	Kirlosker
b	Diesel Engine to drive the above pump complete with the following:			
i	Diesel engine	1	Nos	Kirlosker
ii	Diesel oil tank necessary fitting, supports, piping & valve with level indicator	1	Set	
iii	Exhaust piping, with necessary fittings, supports, insulation etc.,	23	Mtrs	
iv	Batteries of required Amp. Hr including battery terminal & box (2nos. Of 12 volts)	2	Sets	
v	Cooling water line for the engine with pipe/valve etc.,	1	Set	
c	Base frame made of MS Channel to accommodate the above pump and engine complete with foundation bolts, pedestals and allied civil works etc.	1	Nos	
2	Autostart panel for the diesel engine complete auto/annual switch indicator lamps protective fuses with battery charger, suitable of working on 230 V, AC single phase, enclosure being vermin and dust proof.	1	No	
3	CABLE/EARTHING			

Sl. No	Description	Qty	Unit	Make
a	10c X 2.5 Sqmm copper armoured cable.	12	Mtr	
b	2c X 1.5 Sqmm copper armoured cable.	12	Mtr	
c	Earthing for auto start panel with copper flat.	20	Mtr	
4	VALVES WITH NECESSARY FLANGE, GSKET, NUT & BOLT OF THE FOLLOWING SIZES			
a	200 mm dia butterfly valve.	1	No	Inter valve
b	150 mm dia butterfly valve.	1	No	Inter valve
c	80 mm dia bitterfly valve.	18	Nos	Inter valve
d	150 mm dia water type no-return valve	5	Nos	Inter valve
5	MS fabricated basket type 'Y' type stainer			
a	80 mm dia	6	Nos	
6	Pressire guage with isolating valves, 0-14 Kgs/cm.sq	12	Nos	
8	High velocity projectors	144	Nos	Spray safe
9	Glass bulb detector 79 deg c	102	Nos	Spray safe
10	MS PIPES AS PER IS: 1239, HEAVY GRADE			
b	150 mm dia, heavy glass.	134	Mtr	
c	80 mm dia	105	Mtr	
d	65mm dia.	179	Mtr	
e	50 mm dia	182	Mtr	
f	25 mm dia	929	Mtr	
11	Coating and wrapping materials for underground MS pipes	68	Sqm	
12	Deluge valve 80 mm dia with all acessories	6	Nos	
13	CONTROL PANEL/CABLES			
a	Local control panel for deluge valve iincluding battery charger / batteries of 24 Volts/180Amp. Hr.	1	Nos	
c	2c X 2.5 Sqmm copper armoured cable.	95	Mtr	
14	MS Support made of 'L' angle 75 X 75 X 6 mm / plate / 'U' clamp for above ground MS pipes.	971	Kgs	
15	Painting of above ground MS pipes with one coat of metal primer and two coats of fire red enamel paint.	211	Sqm	