



## ITI LIMITED: KANJIKODE WEST: PALAKKAD– 678 623

**PALAKKAD** Phone: (0491) 2566010 (4 Lines) FAX: (0491)2566009 E-mail: plant\_pkd@itiltld.co.in

### **RETENDER NOTICE**

Ref: EE/PE/420/21/03-03R

Date: 12/04/2021

Sealed item rate tenders in prescribed form in **Two Bid format** are invited from reputed well experienced Contractors who have carried out *Design, Supply, Installation, Testing and commissioning of Fire Detection and Alarm System* in Central/State Govt./Semi-Govt./Public Sector undertakings/Autonomous bodies/Reputed Private firms and also fulfilling the other eligibility criteria called for in the tender..

#### **Description of Work:**

*Design, Supply, Installation, Testing and commissioning of Fire Detection and Alarm System at ITI Limited, Palakkad.*

**Details for Bid are as follows**

Sl. No.	Description	Schedule
1	Tender Publishing Date	12.04.2021
2	Site Visit	12.04.2021 to 26.04.2021
3	Last date of seeking Clarification by the bidder	20.04.2021
4	Publication of corrigendum, if any	22.04.2021
5	Last date for submission of Bid	28.04.2021(14:00Hrs)
6	Bid Validity Period	90 days
7	Tender Document Fee	Rs 1,180/- in the form of Cross Demand Draft in favor of ITI Limited Payable at <b>Palakkad</b> .
8	Ernest Money Deposit	Rs 3,16,000/- in the form of DD/BG in favor of ITI Limited payable at <b>Palakkad</b> .
9	Opening of Technical Bid	28.04.2021(14:30Hrs)
10	Opening of Financial Bid	To be informed later to successful bidders in the technical bid
11	Address for Submission of Hard Copy of Bid	DGM(Central Services), ITI Limited, PALAKKAD PLANT, KANJIKODE WEST (P.O.), PALAKKAD, KERALA 678623
12	Time of Completion of work	180 days

The tender forms with schedule of quantities can be downloaded from our web site **www.itiltld.in** or can be had from the Plant Electrical Department, ITI Limited, Kanjikode west, Palakkad - 678 623 during the working hours from 10.00 AM to 4.00 PM on all working days.

The sealed envelope containing the technical bid shall be superscribed with “Technical Bid – Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system in ITI limited, Palakkad - Tender Ref: EE/PE/420/21/03-03R due on 28/04/2021” and the sealed envelope containing price bid shall be superscribed with “Price Bid – Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system in ITI limited, Palakkad - Tender Ref: EE/PE/420/21/03-03R due on 28/04/2021”.

Both the envelopes marked “Technical Bid” and Price Bid” shall be enclosed in an outer sealed envelope superscribed with “Bid – Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system in ITI limited, Palakkad - Tender Ref: EE/PE/420/21/03-03R due on 28/04/2021” and should reach the undersigned on or before 28/04/2021 at 2.00.PM. The same will be opened in the office of the undersigned in presence of the tenderers who choose to be present in the office on 28/04/2021 at 2.30 PM.

Tenders shall remain firm and valid for acceptance for a period of **3 months** from the last date for receipt of the tenders.

EMD should be paid by Demand draft/PBG in favour of ITI Limited, Kanjikode West, Palakkad -678 623 payable at Palakkad. Other modes of payment will not be accepted. The details of the Demand draft/PBG should be clearly indicated on the tender envelopes.

Contractors those who are using the tender documents downloaded from the web site shall enclose the cost of the tender document by a separate Bank draft (other than EMD) drawn in favour of ITI Limited, Kanjikode West, Palakkad-678 623 payable at Palakkad as per the details as specified in this tender notice failing which such tenders are liable for rejection.

**SINCE THIS IS A WORKS CONTRACT, BENEFITS TO MSEs UNDER PUBLIC PROCUREMENT POLICY WILL NOT BE APPLICABLE.**

Company reserves the right to verify the credentials of the contractors before awarding the work. M/s. ITI Limited reserves the right to accept or reject, all or any Tender in full or part without assigning any reason thereof.

DEPUTY GENERAL MANAGER (CS)  
ITI LIMITED  
KANJIKODE WEST  
PALAKKAD- 678 623

**Annexure I**  
**BID SUBMISSION**

The tender is to be submitted in Two Bid Format.

- A. Technical Bid
- B. Price Bid

The “**Technical Bid**” will be subjected to scrutiny before opening of the “**Price Bid**”. In the event of the bidder failing to furnish all the relevant documents as per the eligibility criteria in the “**Technical Bid**” then their “**Price Bid**” will not be opened and the same will be returned to the respective contractor without opening.

**Date of opening of the Price Bid will be communicated separately to such of the eligible contractors who have qualified in the Technical Bid.**

**TECHNICAL BID**

The sealed envelope containing the technical bid shall be superscribed with “**Technical Bid – Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system in ITI limited, Palakkad - Tender Ref: EE/PE/420/21/03-03R due on 28/04/2021**” and shall contain the following documents :

**A. Proof of Work Experience**

Those contractors who have successfully completed **Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system** works in the last 3 years ending 31.03.2021 satisfying the below conditions shall enclose relevant work orders in proof of the same:

Single work costing Rs.1,25,00,000/- and above **OR**

Two Works, each costing Rs.80,00,000/- and above **OR**

Three works, each costing Rs.63,00,000/- and above.

- B Cost of Tender Document & EMD** – Cost of Tender Document of Rs.1,180.00 (Rupees One Thousand One Hundred and Eighty Only) in the form of Crossed Demand Draft and Earnest Money Deposit of Rs. 3,16,000.00 (Rupees Three Lakh Sixteen Thousands Only) in the form of Crossed Demand Draft/Bank Guarantee in favor of “ITI Ltd, Payable at Palakkad. The Bank Guarantee should be issued by any scheduled Bank and valid for 180days.
- C The Power of Attorney or authorization**, or any other document consisting of adequate proof of the ability of the signatory to bind the bidder, in original, when the power of attorney is a special “Power of Attorney” relating to the specific tender of ITI Limited, Palakkad only. A notarized true copy of the “Power of Attorney” shall also be accepted in lieu of the original, if the power of attorney is a general “Power of Attorney”. However, photocopy of such notarized true copy shall not be accepted.
- D Copy of PAN issued by Income Tax Authority.**
- E GST Registration Certificate.**
- F Audited annual reports for 2017-’18, 2018-’19 & 2019-’20**

**G Signed copy of the following indicating acceptance of the same.**

- 1). General terms & conditions for contract works, Volume-I.
- 2). General terms and conditions for electrical contractors (Annexure-II)
- 3). Technical specification for fire detection and alarm system (Annexure-III)
- 4). List of approved manufactures for different materials. (Annexure-IV)
- 5). Tender Drawings (Annexure-V)

**H An Integrity Pact** shall be signed in a legally valid stamp paper of Rs 100 as per the Format given at Annexure-VI

**I Signed copy of the Price Bid without showing the Price.**

**J Site Visit Report Letter**

The bidder shall visit the site, carry out the survey and understand the requirements in to. The bidder shall obtain a certificate to the effect from the tenderee and submit the certificate **Site Visit Report Letter** indicating that the survey is carried out by the bidder as per **Appendix-IV. The tender submitted without site visit report letter will be rejected out rightly and no further communication on this will be entertained, under any circumstances.**

**SINCE THIS IS A WORKS CONTRACT, BENEFITS TO MSEs UNDER PUBLIC PROCUREMENT POLICY INCLUDING EXEMPTION FROM PAYMENT OF COST OF TENDER DOCUMENT & EMD WILL NOT BE APPLICABLE.**

**PRICE BID**

**The sealed envelope containing the price bid shall be superscribed with “Price Bid – Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system in ITI limited, Palakkad - Tender Ref: EE/PE/420/21/03-03R due on 28/04/2021” and shall contain the following documents:**

**A. Filled in Price Bid as is given in Annexure-VII**

Both the envelopes marked “Technical Bid” and Price Bid” shall be enclosed in an outer sealed envelope superscribed with “**Bid – Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system in ITI limited, Palakkad - Tender Ref: EE/PE/420/21/03-03R due on 28/04/2021**” and should reach the **Office of Deputy General Manager (CS), ITI Limited, Kanjikode West, Palakkad** on or before at **14.00Hrs on 28/04/2021** which will be opened in the office of the undersigned in presence of the tenderers who choose to be present in the office on 28/04/2021 at 2.30 PM.

**Signature of Contractor**

**Deputy General Manager (CS)**

General Terms & Conditions

for

CONTRACT WORKS

**V o l u m e I**

Name of Work : Design, Supply, Installation, Testing and Commissioning of Fire  
Detection and Alarm system in ITI limited, Palakkad



Plant & Civil Engineering Department

**ITI LIMITED**

**KANJIKODE WEST, PALAKKAD -678 623**

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Signature of Contractor

NOTE: 1. LAST DATE FOR SUBMISSION OF THIS TENDER IS 28/04/2021  
2. COUNTER OFFERS IF MADE WILL NOT BE ACCEPTED  
AND WILL BE IGNORED

Tenderers: Shri/Messrs\_\_\_\_\_

**M/s ITI Limited**  
**Kanjikode West**  
**Palakkad-678 623**

**SUB: TENDER FOR Design, Supply, Installation, Testing and Commissioning of Fire  
Detection and Alarm system in ITI limited, Palakkad**

Dear Sirs,

I/We have read and examined the following documents relating to the above work.

- a. Notice inviting Tender.
- b. Specifications /Schedule of rates.
- c. Drawings.
- d. General conditions of contract, special conditions of contract including Contractor's Labour Regulations, Model Rules for Labour Welfare and Safety Code appended to these conditions together with amendments there to Nos.1\_\_\_\_\_

I/We hereby for execution of the works referred to in the aforesaid documents upon the terms and conditions contained or referred to therein and in accordance in all respects with the specifications, designs, drawings and other relevant details at the rates contained in Schedule of Rates and within the period (s) of completion as stipulated for the total sum of Rs.\_\_\_\_\_

In consideration of I/We being invited to tender, I/We agree to keep the tender open for acceptance for 90 (Ninety) days from the due date of Tender opening thereof and not to make any modifications in its terms and conditions which are not acceptable to the Company.

A sum of Rs.\_\_\_\_\_is hereby forwarded in Cash/Bank Draft/Banker's Pay Order as earnest money. If I/We fail to keep the tender open as aforesaid or make any modifications in the terms and conditions of the tender which are not acceptable to the Company, I/We agree that the Company shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money

Signature of Contractor

absolutely. Should this tender be accepted, I/We hereby agree to abide by and fulfill all the terms, conditions and provisions of the aforesaid documents.

If after the tender is accepted, I/We fail to commence the execution of the works as provided in the conditions, I/We agree that the Company shall without prejudice to any of their or remedy be at liberty to forfeit the said earnest money absolutely.

I/We further agree that in case my/our tender is accepted, to deposit the security amount in accordance with the general terms and conditions enclosed herewith.

I/We attach herewith a statement showing the details of construction work carried out for reference and so substantiate my/our experience and capacity to carry out the work on tender. Our bankers are \_\_\_\_\_.

I/We also undertake to complete all works and handover the same in a satisfactory manner to the company or their authorised representative within One month in accordance clause 12 of the general terms and conditions

I/We have read and understood the Company's general's terms and conditions governing this contract and agree to abide by all the terms and conditions stipulated therein.

I/We understand and note that the decision to entrust the above work either in whole or in part to the lowest tenderers or otherwise vests with the Company.

Yours Faithfully,

Date:

(CONTRACTOR/S)

Signed in the presence of witnesses

1. Signature : \_\_\_\_\_  
 Name : \_\_\_\_\_  
 Addresses : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
2. Signature : \_\_\_\_\_  
 Name : \_\_\_\_\_  
 Addresses : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signature of Contractor



## GENERAL CONDITIONS OF CONTRACT

### Interpretation And Definitions

#### Singular & Plural:

1. Where the context so requires, words imparting the singular only also include the plural and Vice-Versa

#### Headings and Marginal notes to conditions:

2. Headings and Marginal notes to these General Conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

#### Definitions:

3. a) "COMPANY" shall mean the "ITI Limited" having its registered office at ITI BHAVAN, DOORVANI NAGAR, BANGALORE-560 016 in the State of Karnataka and includes a duly authorised representative of the Company or any other person empowered in this behalf by the Company to discharge all or any of its functions.
- b) The 'Accepting Authority' shall mean the Management of the Company, and includes a duly authorised representative of the Company or any other person empowered in this behalf by the Company.
- c) The contract' shall mean the notice inviting the tender, the tender and acceptance thereof and the formal agreement, if any, executed between the company and the contractor together with the documents referred to therein including these conditions with appendices and any special conditions, the specification, designs, drawings, schedule of quantities with rates and amounts and schedule of rates. All these documents taken together shall be deemed to form one contract and shall be complementary to one another.
- d) The 'Contractor' shall mean the individual or firm or Company whether incorporated or not, undertaking the works and shall include legal representative of such individual or persons composing such firm or Company as the case may be and permitted assigns of such individual or firm or Company.
- e) The 'Contract Sum' shall mean:
  - i. In the case of Lump Sum Contracts the sum for which the tender is accepted;
  - ii. In the case of percentage Rate Contracts the estimated value of the works as mentioned in the tender adjusted by the Contractor's percentage;
  - iii. In the case of item Rate Contracts the cost of the work arrived at after extension of the quantities shown in Schedule of Quantities by the item quoted by the tenderers for the various items.
- f) A 'Day' shall mean a day of 24 hours from midnight to mid night irrespective of the number of hours worked in that day.
- g) 'Engineer-in-charge shall mean the Engineering Officer appointed by the Company or his duly authorised representative who shall direct, supervise and be in charge of the work for the purpose of the contract.
- h) 'Excepted Risks' are due to riots (otherwise than among contractor's employees) and civil commotion (in so far as both these are uninsurable), war (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution insurrection, military or usurped power any acts of Government, damage from aircrafts, acts of God such as earthquake, lightning and unprecedented floods and other causes over which the Contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by the Company of part of works in respect of which a certificate of completion has been issued or a cause solely due to Company's faulty design of works.

Signature of Contractor

- i) 'Market Rate' shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus ten (10) percent to cover all overheads and profit.
- j) Schedule (s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers issued by the Company or the Standard Schedule Rates prescribed by the Company and the amendments thereto issued from time to time.
- k) The 'Site' shall mean lands and /or other places on, under, in or through which the work is to be executed under the contract including any other lands or places which may be allotted by the Company or used for the purposes of the Contract.
- l) 'Temporary Works' shall mean all temporary works of every kind required in or about the execution, completion or maintenance of the works.
- m) 'Urgent Works' shall mean any urgent measures which, in the opinion of the Engineer-in-Charge become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security.
- n) A 'Week' shall mean seven days without regard to the number of hours worked in any day in this week.
- o) The 'Works' shall mean the work to be executed in accordance with the contract or part(s) thereof as the case may be and shall include all extra or additional, altered or substituted works or temporary and urgent works as required for performance of the Contract.

## **SCOPE AND PERFORMANCE**

### **Contract Documents:**

- 4. The contractor shall be furnished, two certified true copies of the contract Documents except standard specification and the schedule of Rates on payment basis at a nominal value of Rs.500.00 per copy of the document and of all further drawings, which may be issued during the progress of the works. He shall keep one copy these Documents on the site in good order, and the same shall at all reasonable times be available for inspection and use by the Engineer-in Charge, his representatives or by other Inspecting Officers.
- 4.1) None of these documents shall be used by the Contractor for any purpose other than that of this contract.
- 4.2) The Contractor shall take necessary steps to ensure that all persons employed on any work in connection with this contract have noticed that the Indian Official Secrets Act 1923(XIX of 1923) applies to them and shall continue so to apply even after the execution of such works under the contract.

### **Works to be carried out**

- 5. The works to be carried out under the contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plant, equipment and transport which may be require in preparation of and for and in the full and entire execution and completion of the works. The description given in the schedule of quantities shall, unless otherwise stated, be held to include waste on materials, carriage and cartage, carrying in return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full entire execution and completion as aforesaid in accordance with good practice and recognised principles.

### **Inspection of site:**

- 6. The contractor shall inspect and examine the site and its surroundings and shall satisfy himself before submitting his tender as to the nature of the ground and subsoil (so far as is practicable), the form and nature of the Site, the quantities and nature of work and materials necessary for the completion of the works and means of access to the Site, the accommodation he may require and in general shall himself obtain all necessary information as to risks, contingencies and other circumstances which may influence or effect his tender. No extra charge consequent on any misunderstanding or otherwise shall be allowed.

Signature of Contractor

### **Sufficiency of Tender:**

7. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the contract in all matters and things necessary for the proper completion and maintenance of works.

### **Discrepancies and Adjustment of Errors**

8. The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawing being followed in preference to small scale drawings and figured dimensions in preference to scale and special conditions in preference to General Conditions.
- 8.1) In the case of discrepancy between Schedule of Quantities, the specifications and / the Drawings, the following order of preference shall be observed.
  - a) Description in Schedule of Quantities
  - b) Particular specifications and Special Conditions if any
  - c) Drawings
  - d) General Specifications
- 8.2) If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be deciding Authority with regard to the intention of the documents.
- 8.3) Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings as specifications or from any of his obligations under the contract.
- 8.4) If on cheque there are found to be differences between the rates given by Contractor in words and figures or in the amount worked out by him in the Schedule of Quantities and general summary, the same shall be adjusted in accordance with the following rules:
  - a) In the event of a discrepancy between description in words and figures quoted by a tenderers, in the rates which corresponds to the amount worked out by the contractor shall be taken as correct, when the amount of an item is not worked out by the contractor or it does not the corresponds to the rate written either in figures or in words, the rate quoted by the Contractor in words shall be taken as correct.
  - b) In the event of an error occurring in the amount column of Schedule of Quantities as a result of wrong extension of the unit rates and quantity, the unit rate shall be regarded, as firm and extension shall be amended on the basis of the rate.
  - c) All errors in totaling in the amount column and in carrying forward totals shall be corrected.
  - d) The totals of various sections of Schedule of Quantities as amended shall be carried over to the General Summary and the tender-sum amended accordingly. The tendered sum so altered shall, for the purpose of the tender, be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer. Any rounding off totals in various sections of Schedule of Quantities or in General Summary, by the tenderers, shall be ignored.
  - e) In case of lump sum contracts based on Bills of Quantities (Quantities not shown as provisional), should any error in quantities or any omissions of items be discovered, the cumulative effect of which varies the contract sum by more than 50% or Rs.20, 000/- whichever is less, then the errors shall be rectified and rectification dealt with as for deviations/variations under conditions 10&11 hereof, and the value thereof shall be added or deducted from the contract sum, as the case may be provided that there shall be no rectification of any errors, omissions or wrong estimates in the prices inserted by the contractor in the Bill of Quantities.

Signature of Contractor

### **The Earnest Money Deposit and Security Deposit:**

9. (a) Contractor shall deposit along with the Tender 2% of the value of contract by way of Cash or Bank Draft, which would be retained by the company as part of security for the due and faithful fulfillment of the contract by the Contractor. The total security payable by the contractor shall be 5% of the total value of the contract. Tenders that are not accompanied by Earnest Money Deposit are liable to be rejected.

**NOTE:** After adjusting Earnest money deposit the difference between the EMD and 5% of accepted tender value to make up the security deposit 5% shall be recovered by 5% deductions from the Contractor Bill. In other words a sum @ 5% of the gross amount of the bill shall be deducted from each running bill of the contractor till the sum along with the sum already deposited as earnest money will amount to security deposit of 5% of the tendered value of the work.

- b) The Security Deposit shall remain at the entire disposal of the Company as a Security for the satisfactory execution and completion of works in accordance with the Conditions of the Contract.
- c) The Company shall be at liberty to deduct and appropriate from the Security Deposit such compensations and dues as may be payable by the Contractor under the contract and appropriation will be made good by further deduction from the Contractor's subsequent interim bills, in the same manner as aforesaid, until the security deposit is restored to its full limit mentioned above.
- d) Refund of Security Deposit :One half of the Security Deposit refundable to the Contractor worked out on the basis of the value of work completed shall be refunded to the Contractor on the Engineer-in-Charge certifying in writing that the work has been completed as per condition 31 hereof etc.
- e) The EMD paid by the unsuccessful Contractors will be refunded to them without bearing any interest.
- f) On expiry of the Defects liability period (referred to in condition 33 hereof) or on payment of the amount of the final bill payable in accordance with condition 49, whichever is later, Engineer-in-Charge shall on demand from the Contractor, refund to him the remaining portion of the Security Deposit, provided Engineer- in-Charge is satisfied that there is no demand outstanding against the Contractor.
- g) Refund of Security Deposit: -  
50% of Security Deposit after satisfactory completion of the work and payment of final bill and balance 50% after completion of the defects liability period of One year.

### **Deviation / Variations Extent & Pricing**

10. The Engineer-in-Charge shall have power (i) to make alterations in, omissions from, additions to or substitutions for the original Specifications, drawings, design, and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non- availability of a portion of the site or any other reason, and the Contractor shall be bound to carry out the works in accordance with any instruction given to him in writing signed by the Engineer-in-Charge and such alterations, omission, additions, or substitution shall form part of the Contract as if originally provided therein and any altered, additional or substituted which the Contractor may be directed to do in the manner above specified as part of the works, shall be carried out by the Contractor on the same conditions in all respect including price on which he agreed to do the main work except as hereinafter provided. No work shall be ordered by the Engineer-in-Charge as a deviation and in the event of any deviation being ordered which in the opinion of the contractor changes the original nature of the contractor, he shall nevertheless carry it out and the disagreement as to the nature of work and the rate to be paid thereof shall be resolved in accordance with condition 54.

Signature of Contractor

Such deviations/variations shall however be limited to the following:

- (I) Lump sum contracts based on drawings and specifications at 10% of contract value awarded.
- (II) All other Contracts
  - a) Where the estimated cost does not exceed Rs.10 Lakhs at 20% of contract value awarded.
  - b) Where the estimated cost exceeds Rs10Lakhs at 10% of contract value awarded.
- 10.1) The time for completion of the work shall, in the event of any deviation resulting in additional cost over the contract sum being ordered, be extended as follows if requested by the contractor.
  - (a) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original contract sum; plus.
  - (b) 25% of the time calculated in (a) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

If any such item of work is carried out by the Contractor on the instructions of the Engineer-in-Charge, which is not covered by the "accepted schedule of rates", rates for additional, altered or substituted work shall be worked out in accordance with the following provisions in their respective order.

- (i) If the rate for the additional, altered or substituted work are specified in the contract for similar nature of the work, the Contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract for the work.
- (ii) If the rate for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for a similar class of work as are specified in the contract for the work.
- (iii) If the altered, additional or substituted work include any work for which no rates is specified in the contract for the work and which cannot be derived from the rates for a similar class of work on the contract, then such work shall be carried out at the rates entered in C.P.W.D, D.S.R, 2016 plus or minus percentage which the corresponding tendered amount bears to the estimated cost of the entire work put to tender.
- (iv) If the altered, additional or substituted work cannot be determined in the manner specified in the sub clauses (i) to (iii) above, then the contractor shall within seven days of the date of receipt of the order to carry out the work, inform Engineer-in-charge of the rate which it is his intention to charge for such class of work, supported by analysis of rate or rates claimed and Engineer-in-Charge shall determine the rate or rates and pay the contractor accordingly. However the Engineer-in-Charge, by notice in writing will be at full liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner, as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non- settlement of rates of items falling under this clause.

### **Suspension of Works**

- 11(a) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge, may consider necessary for any of the following reasons:
  - (i) On account of any default on the part of the contractor, or
  - (ii) For proper execution of the works or part thereof for reasons other than the default of the contractor; or
  - iii). For safety of the works or part thereof.

The Contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.
- 11(b) If the suspension is ordered for reasons (ii) and (iii) in sub Para (a) above.
  - (i) The Contractor shall be entitled to an extension of the time equal to period of very such suspension plus 25% and

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- (ii) If the total period of all such suspension exceeds thirty days, the Contractor shall, in addition be entitled to compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and /or wages paid by the Contractor to his employees and labour at site, remaining idle during the period of suspension, provided the Contractor submits his claim supported by details to the Engineer-in-Charge within 14 days of the expiry of the period of 30 days.
- c) If the works or part thereof are /is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for a reason (i) in sub- Para (a) above, the Contractor may after receipt of such order serve written notice on the Engineer-in-Charge requiring permission within fifteen days from receipt by the Engineer-in-Charge of the said notice to proceed with the works or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the Contractor to treat the suspension, where it affects only a part of the works as an omission of such part by the Company under condition or where it affects the whole of the works, as an abandonment of the works by the Company shall within ten days of expiring of such period of 15 days give notice in writing of his intentions to the Engineer-in-Charge. In the event of the Contractor treating the suspension as an abandonment of the Contract by the Company, he shall have no claim on payment of any compensation on account of any profit or advantage which he may have derived from the execution of the work in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and / or wages paid by him to the employees and labour at site, remaining idle in consequence and of materials collected which could not be utilised on the works, provided the Contractor submits his claim supported by the details to the Engineer-in-Charge within 28 days of the expiry of the period of 3 months.

#### **Time and Extension for Delay**

- 12. The time allowed for execution of the works as specified in the contract or the extended time in accordance with these conditions shall be the essence of the contract. The execution of the works shall commence from the 15<sup>th</sup> day after the day on which the Engineer-in-Charge issues written orders to commence the work or from the date of handing over of the site whichever is later. If the contractor commits default in commencing the execution of the work as aforesaid, Company shall without prejudice to any other right or remedy be at liberty to forfeit the earnest money absolutely.
- 12(1) As soon as possible after the contract is concluded the Engineer-in-Charge and the Contractor shall agree upon a Time and Progress Chart. The Chart shall be prepared in direct relation to the time stated in the contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades or sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the contract documents, and further to ensure good progress during the execution of the work the contractor shall in all case in which the time allowed for any work exceeds one month (save for special jobs where different progress schedule is specified) complete 1/8<sup>th</sup> of the whole of the work before 1/4<sup>th</sup> of the whole time allowed in the contract has elapsed; 3/8<sup>th</sup> of the work before one half of such time has elapsed and 3/4<sup>th</sup> before 3/4<sup>th</sup> of such time has elapsed.
- 12(2) If the works be delayed by
  - (a) force majeure, or
  - (b) abnormally bad weather, or
  - (c) ( c) serious loss or damage by fire, or
  - (d) civil commotion, local combination of workmen, strike or lockout, affecting any of the trades ,employed on the work ,or
  - (e) delay on the part of other contractors or tradesmen engaged by Company in executing work not forming part of the contract, or
  - (f) non- availability of stores, which are responsibility of Company to supply, or

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- (g) non availability or break-down of tools or plant to be supplied or supplied by company, or
  - (h) any other cause which, in the absolute discretion of the Company is beyond the Contractor's control; then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of Engineer-in-Charge to proceed with the works.
- 12(3) Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay. The contractor may also, if practicable, indicate in such a request a period for which extension is desired.
- 12(4) In any such case the Company may give a fair and reasonable extension of time for completion of works. Such extension shall be communicated to the contractor by the Engineer-in-Charge in writing within 3 months of the date of receipt of such request by the Engineer-in-Charge.

### **Plant and Equipment**

13. The contractor shall arrange at his expense at his own expense all tools plant and equipment (hereinafter referred to as T &P) required for execution of the work, except the items which may be given to him on hire by the Company. Company's T&P hired to the Contractor shall be conveyed by him at his expense from the place of issue to the site and back.
- 13(1) If the contractor requires any item of T&P on hire from the Company over and above the requirements indicated by him at the time of submitting his tender, the Company will, if such item is available, hire it to the Contractor at a rate to be fixed by the Engineer-in- Charge.
- 13(2) The period of hire will be reckoned from the commencement of the day of issue upto the end of the day of return (including all recognized holidays) irrespective of the actual hour of issue and return. The contractor will be exempted from levy of any charges for the number of days he is called upon in writing by the Engineer-in-Charge to suspend execution of the work Company's T&P in question has, in fact remained idle with the Contractor because of the suspension, provided the contractor, in case the period of suspension, exceeds eleven days returns Company's T&P to the place from where it was issued.
- 13(3) The hire charges shall be reckoned as under:
- (a) The first eight working hours(excluding a break of one hour)\_\_\_\_\_one working day.
  - (b) very working hour or part thereof in excess of eight working hours, at the rate of 1/8<sup>th</sup> of hire charges for the working days provided however if the company has paid more than at the rate of 1/8<sup>th</sup> of the wages of the crew for overtime under the Minimum Wages Act or any other law for the time being in force, the Excess of 1/8<sup>th</sup> of the wages shall also be charged to the Contractor.
- 13(4) If at any time company's T&P has not been worked upon during a day except for a break down, or has been worked for less than 8 hours during a day, the contractor shall be charged for one working day.
- 13(5) If any item of Company's T&P has stopped working on account of breakdown before it is worked for four hours in day the contractor will be charged for half a working day. If the item has stopped working after it has worked for more than four hours but less than eight hours, the Contractor will be charged for full working day.
- 13(6) The hire charges mentioned in conditions 13 to 13.5 above cover charges of crew, stores for maintenance and cleaning purposes and fuel needed to start a machine at the time of issue. All other charges such as cost of fuel for running a machine, engine oil, kerosene oil, etc. for working Company's T&P and all unskilled labour and water required for serving / washout shall be borne by the contractor.

The contractor shall permit the Engineer-in-Charge to carry out periodical maintenance for Company's T&P and there will be no deduction in hire charges for the period spent on such maintenance.

However, the contractor shall be allowed to return the tools and plants (issued by the Company) for purposes of repairs and for the duration of such repairs no hire charges shall be levied.

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- 13.7. The contractor shall be responsible for care and custody of Company's T&P (including employment of Chowkidars) during the period Company's T&P remain with him and any damage (fair wear and tear excepted) to any of the equipment (except for Excepted Risks provided always the Contractor has taken precautions necessary to protect it from such risks) shall be made good at the Contractors' expense to the satisfaction of the Engineer-in-Charge unless such damage is caused because of negligence of crew provided by the Company.
- 13.8. The company gives no guarantee in respect of output of his T&P hire to the contractor and no reduction in rates or any compensation shall be allowed on the ground that out turn or performance of Company's T&P was not to the Contractors expectations.
- 13.9. Company's T&P hired to the contractor shall be returned at the place of issue (unless otherwise directed) by the contractor to the Engineer-in-Charge on completion of the work or section of the work or earlier on termination of the hire by the Company as herein after provided on a written notice by the Engineer-in-Charge. The company shall be entitled to terminate the hire on two days notice without assigning any reason whatsoever and the contractor shall have no claim to any payment of compensation or otherwise whatsoever on account of termination of hire of Company's T&P by the company. In such an event, however, a reasonable extension of time shall be given by the Engineer-in-Charge.
- 13.10. A Log Book for recording hours during which every item of Company's T&P issued to the Contractor has worked each day shall be maintained by the member of the crew in charge thereof or any representative of the Engineer-in-Charge appointed in that behalf and shall be daily attested by the Contractor or his authorised agent. In case the contractor contests correctness of any entry and or fails to sign the Log Book the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges shall be calculated with the entries in the Log Book.

#### **Materials to be provided by the Contractor**

14. (a) The contractor shall at his own expense, provide all materials required for the works other than those, which are to be supplied by the Company.
- For all such materials brought by the Contractor "MATERIAL PASS -IN" should be obtained from our Security Department clearly indicating the description and quantity of materials brought and submit a copy of the "MATERIAL PASS -IN" to the Engineer-in-Charge.
1. All materials to be provided by the Contractor shall be in conformity with the specifications laid in the contract and the contractor shall, if requested by the Engineer-in-Charge, furnish proof to the satisfaction of the Engineer-in-Charge, that the material so comply.
  2. The Contractor shall, at his own expense and without delay, supply to the Engineer-in-Charge samples of materials proposed to be used in the works. The Engineer-in-Charge shall within seven days of supply of samples or within such further periods as he may require, intimate the Contractor in writing, whether samples are approved by him or not. If samples are not approved, the Contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval fresh samples complying with the specifications laid down in the contract.
  3. The Engineer-in-Charge shall have full powers to require removal of any or all of the material brought to site by the Contractor which are not in accordance with the contract specifications or do not conform in character or quality to samples approved by him. In case of default on the part of the Contractor in removing the rejected material Engineer-in-Charge shall have full powers to procure other proper materials to substituted for rejected materials and in the event of the Contractor refusing to comply, he may cause the same to be supplied by other means. All cost, which may attend upon such removal and / or substitution, shall be borne by the Contractor.

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4. The Contractor shall indemnify the Company or any agent or employee of the Company against any action, claim or proceeding relating to infringement or use of any patent design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or material or part hereof included in the contract .In the event of any claim being made or action being brought against the Company or any agent servant, or employee of the Company in respect of any such matters as aforesaid, the Contractor shall immediately be notified thereof. Provided that such indemnity shall not apply when such infringement has taken place in complying with the specific directions issued by the Company but the Contractor shall pay any royalties or other charges payable in respect of any such use, the amount, so paid being reimbursed to the Contractor only if the use was the result of any drawings and / or specifications issued after submission of the tender.
5. Subject as hereinafter provided in condition 50/50 -A All charges on account of octroi, terminal or sales tax and other duties on materials obtained for the works from any source (excluding materials supplied by the Company) shall be borne by the Contractor.
6. The Engineer-in- Charge shall be entitled to have tests carried out as specified in the contract for any materials supplied by the Contractor other than those for which, as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the Engineer-in-Charge may require for the purpose. If no tests are specified in the contract, and such tests are required by the Engineer-in-Charge the Contractor shall provide all facilities required for the purpose and the charges for these tests shall be borne by the Contractor only if tests disclose that the said material are not in accordance with the provision of the contract. The cost of materials consumed in tests shall be borne by the Contractor in all cases except when otherwise provided .

**14. (b) Materials to be supplied by the Company**

1. If after acceptance of the tender the Contractor desires the Company to supply any other materials, such materials may be supplied by the Company, if available, at rates to be fixed by the Engineer-in-Charge.
2. For the materials in which the Company has agreed to supply to the Contractor, he shall give a reasonable notice in writing of his requirements to the Engineer -in- Charge in accordance with the agreed phased programme. Such materials shall be supplied for the purposes of the contract only and the value of materials so supplied shall be set off or deducted as and when the materials are consumed in terms of work for which payment is being made to the Contractor, for any sums then due or which may thereafter become due to the Contractor, under the contract. At the time of submission of bills the Contractor shall properly account for the materials issued to him to the satisfaction of the Engineer-in-Charge and certify that balance of materials supplied is available at site.
3. The materials will be issued from the Company's departmental store at Kanjikode. The Contractor shall bear the cost of loading, transporting to site, unloading, storing under cover as required, assembling and joining the several parts together as necessary and incorporation of fixing materials in the works including all preparatory works of whatever descriptions as may be required.
4. All materials issued to the Contractor by the Company for incorporation of fixing in the works(including preparatory works) shall, on completion or on foreclosure of the works, be returned by the Contractor at his expense, at the place of issue, after making due allowance for actual consumption, reasonable wear and tear and /or waste.

If the Contractor is required to deliver such material at a place other than the place of issue, he shall do so and the transportation charges from the sides to such place, less the transportation charges which would have been incurred by the Contractor had such materials been delivered at the place of issue, shall be borne by the Company.

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5. Surplus material returned by the Contractor shall be credited to him by the Engineer-in- Charge at rates not exceeding these at which were originally issued to him after taking into consideration any deterioration or damage which may have been caused to the said materials whilst in the custody of the Contractor.
6. If on completion of works the contractor fails to return surplus material out of those supplied by the Company, then in addition to any other liability which the Contractor would incur, the Engineer-in-Charge may; by a written notice to the Contractor, require him to pay within a for night of receipt of the notice, for such unreturned surplus material at a double the issue rates.
7. If cement is to be supplied by the Company, every cement godown shall be provided with two locks on each door. The key of one lock at each door shall remain with the Engineer-in-Charge or his representative and that of the other lock with the Contractor's authorised agent at site of works so that cement is removed from the godown only according to daily requirement with the knowledge of both the parties.

#### **GENERAL**

15. Materials required for the works whether brought by the Contractor or supplied by the Company, shall be stored by the Contractor only at places approved by the Engineer-in-Charge, storage and safe custody shall be responsibility of the Contractor. Rent will be charged to the Contractor for storage accommodation provided by the Company.
1. Company's official concerned with the contract shall be entitled at any time to instruct and examine any materials intended to be used in or on the works either on the site or at factory workshop or other place(s) where such materials are assembled, fabricated manufactured or at at any places where these are lying or from which these are being obtained and the Contractor give such facilities as may be required for such inspection and examination.
2. All materials brought to the site shall become and remains the property of the Company and shall not be removed off the site without the prior written approval of the Engineer- in- Charge. But whenever the works are finally completed and advance, if any, in respect of any such materials is fully recovered, the Contractor shall at his own expense forthwith from the site all surplus materials originally supplied by him and upon such removal, the same shall revert in and become the property of the Contractor.

#### **LABOUR**

- 16.1 The Contractor shall employ labour in sufficient numbers either directly or through sub-contractor, where such subletting is permitted, to maintain the required rate of progress and of quality to ensure workmanship of the specified in the contract and to the satisfaction of the Engineer-in-Charge. The contractor shall not employ in connection with the works any person who has not completed his fifteenth years of age.
  - (a) In this connection, the Contractor shall be responsible for the implementation of the Kerala Factory Rules 1957 regarding employment of child/adolescent labour and in default of complaints with any of the provisions of the said Rules he shall indemnify the Company from any damages, penalties, fines, claims, or any other cause of action against the Company on account of any action by the competent government authority or person.
  - (b) The Contractor shall not employ any person below the age of 14 years under the law and if any child/adolescent labour who is above the age of 14 years but not completed 15 or completed 15 years but not completed 18 years, a certificate of fitness shall be obtained by the Contractor from the Medical Officer, I.T.I. General Hospital, without which the Contractor shall be liable for action as per the provisions under the law.

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- 16.1 The Contractor shall furnish to the Engineer- in- Charge at fortnightly intervals a distribution return of the number and description by trades of the work people employed on the works .The Contractor shall also submit on 4<sup>th</sup> and 19<sup>th</sup> of every month to the Engineer- in- Charge a true statement showing in respect of second half of the preceding month and the first half current month. i) the accident that occurred during the said fortnight showing the circumstances under which they happened and the extend of damage and injury caused by them and ii) the number of female workers who have been allowed Maternity benefit as provided in the Maternity Benefit Act ,1961 ,or rules made thereunder and the amount paid to them.
- 16.2 The Contractor shall pay to labour employed by him either directly or through sub-contractor wages not less than fair wages as defined in the Contractor's labour Regulations.
- 16.3 The Contractor shall in respect of labour employed by him either directly or through sub-contractor comply with or cause to be complied with the Contractor's labour regulation regard to all matters provided therein
- 16.4 The Contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum Wages Act, 1947, Employer's Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial disputes Act, 1947, Maternity Benefit Act, 1961 and Mines Act.1952 or any modifications thereof or any other law relating thereto and the rules made thereunder from time to time.
- A) The Contractor shall be liable to pay his contribution and the employees' contribution to the State Insurance Scheme in respect of all labour employed by him for the execution of the contract, in accordance with the provisions of "The Employees ' State Insurance Act 1948" as amended from time to time. In case the Contractor fails to submit full details of his account of labour employed and the contribution payable the Engineer- in- Charge shall recover from the running bills of the Contractor an amount of contribution as assessed by him. The amount so recovered shall be adjusted against the actual contribution payable for Employees' State Insurance.
- 16.5 The Engineer- in- Charge shall on report having been made by an Inspecting Officer as defined in the Contractor's Labour Regulations have the power to deduct from the moneys due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfillment of the conditions of the contract for the benefit of workers, non-payment of wages or deductions made from his or their wages which are not justified by the terms of the contract or non-observance of the said Contractor's Labour Regulations.
- 16.6 The contractor shall indemnify the Company against any payments to be made under and for observance of the Regulations aforesaid without prejudice to his right to claim indemnity from his sub-Contractor.
- 16.7 In the event of the Contractor committing a default or breach of any of the provisions of the aforesaid Contractor's Labour Regulations as amended from time to time furnishing any information or submitting or filling any Form / Register/ Slip under the provision of these regulations which is materially incorrect then only report of the inspecting officer as defined in the Contractors Labour Regulation, the contractor shall without prejudice to any other liability pay to the company a sum not exceeding Rs.50.00 as liquidated damages for every default, breach or furnishing, making submitting, filling materially incorrect statement as may be fixed by the Engineer- in-Charge and in the event of the Contractor's default continuing in this respect, the liquidated damages may be enhanced to Rs.50.00 per day for each day of default subject to maximum of one percent of the estimated cost of the works as per tender. The Engineer-in- Charge shall deduct such amount from bills or surety deposit of the Contractor and credit the same to the Welfare Fund constituted under Regulations. The decision of the Engineer- in- Charge in this respect shall be final and binding.

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## **Model Rule For Labour Welfare**

- 16.1.1 The Contractor shall at his own expense comply with or cause to be complied with Model Rule for Labour Welfare as appended to these conditions or rules framed by Government from time to time for the protection of health and for making sanitary arrangements for workers employed directly or indirectly on the works. In case fails to make arrangements as aforesaid, the Engineer- in- Charge shall be entitled to do so and recover the cost thereof from the Contractor.

### **Safety Code**

- 16.1.2 The contractor shall at his own expense arrange for the safety provisions as appended to these conditions or as required by the Engineer-in-Charge in respect of all labour directly or indirectly employed for performance of the works and shall provide all facilities in connection therewith. In case the contractor fails to make arrangements and provide necessary facilities as aforesaid, Engineer- in- Charge shall be entitled to do so and recover the cost thereof from the Contractor.
- (1) Failure to comply with Model Rule for Labour Welfare Society Code or the provisions relating to accidents and to grant of maternity benefits to female workers shall make Contractor liable to pay to the Company as liquidated damages an amount not exceeding Rs.50.00 for each default or materially in correct statement. The decision of the Engineer- in- Charge in such matters based on reports from the Inspecting Officers as defined in the Contractor's Labour Regulation as appended to these conditions shall be final and binding and deductions for recovery of such liquidated damages may be made from any amount payable to the Contractor.

### **Admission to Site**

17. The contractor shall not be permitted to enter on (other than for inspection purpose) or take possession of the site until instruction to do so by the Engineer- in- Charge in writing. The portion of site to be occupied by the contractor shall be defined and /or marked on the site plan, failing which these shall be indicated by the Engineer- in - Charge at the site and the contractor shall on no account be allowed to extend his operations beyond these areas. In respect of any land allotted to the Contractor for purpose of or in connection with the contract, the Contract shall be a license subject to the following and such other terms and conditions as many be imposed by the licenser:-
- (i) That he shall pay a nominal license fee of Rs.1/- per year or part of a year for use and occupation, in respect of each and every separate area of land allotted to him.
  - (ii) That such use or occupation shall not confer any right of tenancy of the land to the Contractor.
  - (iii) That the Contractor shall be liable to vacate the land on demand by the Engineer- in- Charge.
  - (iv) That the Contractor shall have no right to any construction over this land without the written permission of the Engineer- in- Charge. In case, he is allowed to construct any structure he shall have to demolish and clear the same before handing over the completed work unless agreed to the contrary.
- 17.1. The Contractor shall provide, if necessary or if required on the site, all temporary access thereto and shall alter, adapt and maintain the same as required from time to time and shall take up and clear them away as and when no longer required and as when ordered by the Engineer- in- Charge and make good all damage done to the site.

### **Setting out the works**

18. The Engineer- in-Charge shall supply dimensional, drawings levels and other information necessary to enable the Contractor to set out the works. The contractors shall provide setting out apparatus required and set out the works and be responsible for the accuracy of the same. He shall amend at his own cost and to the satisfaction of the Engineer- in-Charge any error found at any stage which may arise through inaccurate setting out unless such error is based on incorrect data furnished in writing by the Engineer-in-Charge, in which case the cost of rectification shall be borne by the Company. The Contractor shall protect and preserve all bench marks used in setting out the works till end of the Defects Liability Period unless the Engineer- in-Charge directs earlier removal.

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### **Site Drainage**

19. All water which may accumulate on the site during the progress of the Works, or in trenches and excavations, from other than the excepted risks shall be removed from the site to the satisfaction of the Engineer- in- Charge, and the Contractor's expense.

### **Nuisance**

20. The Contractor shall not at any time do, cause or permit any nuisance on the site or do anything which shall cause unnecessary disturbance or inconvenience to owners tenants or occupiers of other properties near the site and to the public generally.

### **Materials Obtained from Excavation**

21. Materials of any kind obtained from excavation on the site shall remain the property of the company and shall be disposed off as Engineer- in- Charge may direct.

### **Treasure, Trove, Fossils, etc.**

22. All fossils, coins, articles of value or antiquity and structure and other remains or things of geological or archaeological interest discovered on the site shall be the absolute property of the Company and Contractor take reasonable precautions to prevent his workmen or any other person from removing or damaging any, such article or thing and shall immediately upon discovery thereof and before removal acquaint the Engineer- in- Charge's with such discovery and carry out the Engineer- in- Charge's direction as to the disposal of the same at the expense of the Company.

### **Protection of Trees**

23. Trees designated by the Engineer- in- Charge shall be protected from damage during the course of the works and earth level within 1 Metre of each such tree shall not be changed. Where necessary, such trees shall be protected by providing temporary fencing by the Contractor at his own cost.

### **Watching and Lighting**

24. The Contractor shall provide and maintain at his own expense all lights, guards, fencing and watching when and where necessary or required by the Engineer- in-Charge for the protection of the works or for the safety and convenience of those employed on the works or the public.

### **Contractor's Supervision**

25. The Contractor shall either himself supervise the execution of the works or shall appoint a competent agent approved by the Engineer-in- Charge to act on his behalf. If in the opinion of the Engineer-in-Charge the Contractor has himself no sufficient knowledge and experience to be capable of receiving instructions or cannot give his full attention to the works, the Contractor shall at his own expense, employ at his accredited agent an Engineer approved by the Engineer- in- Charge. Orders given to the Contractor's agent shall be considered to have the same force if these had been given to the Contractor himself. If the Contractor fails to appoint a suitable agent as directed by the Engineer- in-Charge, the Engineer-in-Charge shall have full powers to suspend the execution of the works until such date as a suitable agent is appointed and the Contractor shall be held responsible for the delay so caused to the works.

### **Inspection and Approval**

26. All works embracing more than one process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice to the Engineer-in-Charge or his authorised representative when each stage is ready. In default of such notice, the Engineer-in-Charge shall be entitled to appraise the quality and extent thereof.

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- 26.1** No work shall be covered up or put out of view without the approval of the Engineer-in-Charge or his authorised representative and the Contractor shall afford full opportunity for examination and measurement of any work which is about to be covered up or put out of view and for examination of foundation before permanent work is placed thereon. The Contractor shall give due notice to the Engineer-in-Charge or his authorised representative whenever any such work or the foundation is ready for examination and the Engineer-in-Charge or his representative shall without unreasonable delay, unless he considers it necessary and advise the Contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundation. In the event of the failure of the Contractor to give such notice he shall if required by the Engineer-in-Charge uncover such work at the Contractor's expense.
- 26.2** Company Officers concerned with contract shall have powers at any time to inspect and examine any part of the works and the Contractor shall give such facilities as may be required for such inspection and examination.

#### **Duties and Powers of Engineers-in-Charge's representative**

- 27.** The duties of the Representative of the Engineer-in-Charge, are to watch and supervise the works and to test and examine any materials to be used or workmanship employed in connection with the works. He shall have no authority to order any work involving any extra payment by the Company or to make any variation in the works.
- 27.1** The Engineer-in-Charge may from time to time delegate to his representative any of the powers authorities vested in the Engineer-in-Charge. Any written instruction or written approval given by the representative of the Engineer-in-Charge to the Contractor within the terms of such delegation shall bind the Contractor and the Company as though it had been given by the Engineer-in-Charge.
- 27.2** Failure of the representative of the Engineer-in-Charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-Charge thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof.
- 27.3** If the Contractor is dissatisfied with any decision of the Representative of the Engineer-in-Charge shall be entitled to refer the matter to the Engineer-in-Charge who shall thereupon confirm, reverse or vary such decision.

#### **Removal of Workmen**

- 28.** The Contractor shall employ in and about the execution of the works only such person as are skilled and experienced in there several trades and the Engineer-in-Charge shall be at liberty to object to and require the Contractor to remove from the works any person employed by the contractor in or about the execution of the works who in the opinion of the Engineer-in-Charge misconducts himself or is incompetent negligent in the proper performance of his duties and such person shall not be again employed upon the works without permission of the Engineer-in-Charge .

#### **Uncovering and Making Good**

- 29.** The Contractor shall uncover any part of the works and/or make opening or through the same as the Engineer-in-Charge may from time to time direct for his verification and shall reinstate and make good such part to the satisfaction of the Engineer-in-Charge . If any such part has been covered up or put out of view after being approved by the Engineer-in-Charge and is subsequently found on uncovering to be executed in accordance with the contract, the expenses of uncovering and making opening in or through, reinstating and making good the same shall be borne by the Company. In any other case all such expenses shall be borne by the Contractor.

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### **Normal Working hours And Work On Holidays And During Night**

- 30.** The Contractor shall carry out all the works during the working hours of the General Shift of the Factory. The Contractor shall not carry out any work on holidays and during night, without prior permission in writing from the Engineer-in-Chief.

**31. Completion Certificate**

- 31.1** As soon as the work is completed, the Contractor shall give notice of such completion to the Engineer-in-Charge and within ten days of receipt of such notice the Engineer-in-Charge shall inspect the work and shall furnish the Contractor with a certificate of completion indicating (a) the date of completion, (b) defects to be rectified by the Contractor and/or (c) items for which payment shall be made at reduced rates indicating the reasons therefore. When separate periods of completion have been specified for items of group of items, the Engineer-in-Charge shall issue separate completion certificate for such items or group of items. No certificates of completion shall be issued, nor shall the work be considered to be complete till the contractor shall have removed from the premises on which the work has been executed all scaffoldings, sheds and surplus materials, except , such as are required for rectification of defects, rubbish and all huts and sanitary arrangements required for his workmen on the site in connection with the execution of the work, as shall have been erected by the Contractor or the workmen and cleaned all dirt from all parts of buildings(s)in, upon or about which work has been executed or of which he may have had possession for the purpose of the execution thereof and cleaned floors, gutters and drains, eased doors and sashes, oil locks and fastenings, labeled keys clearly and handed them over to the Engineer-in-Charge or his representatives and made the whole premises fit for immediate occupation or use to the satisfaction of the Engineer-in-Charge. If the contractor shall fail to comply with any of the requirements of the this condition as as aforesaid or on before the date of completion of the works, the Engineer- in-Charge may at the expense of the contractor fulfill such requirements and dispose off the scaffoldings, surplus materials and rubbish etc. as he thinks fit and the Contractor shall have no claim in respect of any such scaffolding or surplus materials except for any sum actually realized by the sale thereof less the cost of fulfilling the requirements and any other amount that may be due from the Contractor. If the expenses of fulfilling such requirements are more than the amount realised on such disposal as aforesaid, the Contractor shall forthwith on demand pay such excess.
- 31.2** If at any time before completion of the entire work, items or groups of items for which separate periods of completion have been specified, have been completed and if the Engineer-in-Charge with the consent of the Contractor takes possession of any part or parts of the same (any such part(s) being hereinafter in this condition referred to as the relevant part) then notwithstanding anything expressed or implied elsewhere in this Contract.
- (a) Within ten days of the date of completion of such items or group of items or of possession of the relevant part, the Engineer-in-Charge shall issue completion certificate for the relevant part has in condition 31(1) above provided the Contractor fulfills his obligations under that conditions for the relevant part.
  - (b) The defects Liability Period in respect of such items and the relevant part shall be deemed to have commenced from the certified date of completion of such items or the relevant part as the case may be.
  - (c) The Contractor may reduce the value insured under condition 34 by the value of the completed items or relevant part as estimated by the Engineer in-Charge for this purpose. This estimate shall be applicable for this purpose only and for no other.
  - (d) For purposes of ascertaining compensation for delay under condition32 in respect of any period during which the works are not complete the relevant part will be deemed to form a separate item or group, with date of completion as given in the contract or as extended under condition12 and actual date of completion as certified by the Engineer-in-Charge under this condition.

Signature of Contractor

### **Compensation for Delay**

- 32 If the contractor fails to maintain the required progress in terms of condition 12 or to complete the work and clear the site on or before the contract or extended date/period of completion, he shall, without prejudice to any other right or remedy of the Company on account of such breach, to pay as agreed as compensation amount calculated as stipulated below or such smaller amount as may be fixed by the company on the contract value of work for every week that the progress remains below that specified condition 12 or that the work remains incomplete. This will also apply to items or group of items for which separate period of completion has been specified. For this purpose the term 'contract Value' shall be the value at contract rates of the work as ordered.
- (a) Completion period (as originally stipulated) not exceeding 6 months at 1(one) percent per week.
  - (b) Completion period (as originally stipulated) exceeding 6 months and not exceeding 2 years @ 1 ½ (half) percent per week
  - (c) Completion period (as originally stipulated) exceeding 2 years @ 1/4<sup>th</sup> (quarter) percent per week.
- 32.1. Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed the under noted percentage of the contract value or of the contract value of the items or group of items of work for which a separate period of completion is given:
- (a) Completion period as originally stipulated not exceeding 6 months @ 10%
  - (b) Completion period as originally stipulated exceeding 6 months and not exceeding 2 years @ 7 ½ %.
  - (c) Completion period (as originally stipulated) exceeding 2 years @ 5%.
- 32.2 The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the company.

### **Defects Liability Period**

33. The Contractor shall be responsible to make good and remedy at his own expense within such period as may be stipulated by the Engineer-in-Charge, any defect which may develop or may be noticed before the expiry of twelve months from the certified date of completion.

### **Contractor's Liability and Insurance**

34. From commencement to completion of the works, the Contractor shall take full responsibility for the care thereof and for taking precautions to prevent loss or damage and to minimise loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the works or any part thereof and all Company's T&P from any cost whatsoever (save and except the Excepted Risks) and shall at his own cost repair and make good the same so that at completion the works and all Company's T&P shall be in good order and condition and in conformity in every respect with the requirements after the Contract and instruction of the Engineer-in-Charge.
- 34.1 In the event of any loss or damage to the works or any part thereof or to any T&P or to any material or articles at the site from any of the Excepted Risks the following provisions shall have effect:
- (a) The Contractor shall, as may be directed in writing by the Engineer-in-Charge, remove from the site any debris and so much of the works as shall have been damaged, taking to Company's store such Company's T&P, articles and / or materials as may be directed.
  - (b) The Contractor shall as may be directed in writing by the Engineer-in-Charge proceed with the erection and completion of the works under and with the provisions and conditions of the in accordance contract; and

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- (c) These will be added to the Contract sum, the net amount due, ascertained in the same manner as for deviations, or as prescribed for payment, in receipt of the re-execution of the works lost or damage the replacement, of any T&P and of any materials and articles lost or damaged but not incorporated in the works on the day. When the loss/damage occurred and the removal by the Contractor as provided above of Company's T&P articles and /or materials to the Company's store and of debris and damaged works referred to therein and the compensations paid by him, under any law for time being in force to any workman employed by him for any injury caused to him or the workman's legal successors for loss of the workman's life.
- 34.2 Provided always that the Contractor shall not be entitled to payment under the above provisions in respect of so much loss or damage as has been occasioned by any failure on his part to perform his obligations under the contract not taking precautions to prevent loss or damage or minimize the amount of such loss or, damage.
- 34.3 Without limiting the obligations and responsibilities under this conditions the Contractor shall insure the works (from commencement to completion), the Company's T&P hired by the Contractor and all material at site, to their full value as to Company's T&P according to the value indicated by the Engineer-in-Charge against the risk of loss or damage from whatever cause arising other than the Excepted Risks. The said insurance shall be in joint names of the Company and the Contractor and the Contractor shall deposit with the Engineer – in - Charge the said policy or policies. All money's payable by the insurers under such policy or policies shall be recovered by the Company and shall be paid to the Contractor in installments by the Engineer-in-Charge for the purpose of rebuilding or replacement or repair of the works and /or goods destroyed or damaged as the case may be.
- 34.4 If the Contractor has a blanket insurance policy for all his works and the policy, covers all the items to be insured under this condition the said policy shall be assigned by the Contractor in favour of the Company, provided however is any amount is payable under the policy other than the work under this Contract the same may be recovered by the Contractor directly from the insurers.
- 34.5 Where the Company building or a part thereof is rendered by the Contractor he shall insure the entire building if the building or any part thereof is used by him for the purpose of storing or using materials of combustible nature, as to which the decision of the Engineer-in-Charge shall be final and binding.
- 34.6 The Contractor shall indemnify and keep indemnified the Company against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out of or in consequence of the construction and maintenance of the works and against all claims, demands, proceedings, damages cost, charges and expenses whatsoever in respect of or in relation thereto; provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the Company against any compensation or damages caused by the excepted risks.
- 34.7 Before commencing execution of the work, the Contractor shall without in any way limiting his obligations and responsibilities under this conditions, insure against any damages / loss or injury which may occur to any property (Excluding that of the Company but including the Company's building rented by the Contractor wholly or in part and any part of which is used by him for storing combustible materials ),or to any person (including any employees of the Company) by or arising out of carrying out the Contract.

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- 34.8 The Contractor shall at all time indemnify the Company against all claims, damages or compensation under the provisions of payment of Wages Act, 1936, Minimum Wages Act, 1948, Employers Liability Act, 1938, the Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, The Employees State Insurance Act, 1948, and Maternity Benefit Act, 1961 or any modifications thereof or any other law relating thereto and rules made thereunder from time to time as or consequence of any accidents or injury to any workman or other person in or about the works, whether in the employment of the Contractor or not save and except where such accident or injury has resulted from any act of the Company, its agent or servants, and also against all cost, charges and expenses of any suit, action or proceedings arising out of such accident or injury and against all sum or sums which may with the consent of the Contractor be paid to compromise or compound any such claim. Without limiting his obligations and liabilities as above provided, the Contractor shall insure against all claims, damages or compensations payable under the Workmen's Compensation Act, 1923 or any modification thereof any other law relating thereto.
- 34.9 The aforesaid insurance policy/policies shall provide that they shall not be cancelled till the Engineer-in Charge agreed to their cancellation.
- 34.10 The Contractor shall prove to the Engineer-in Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premium for keeping alive till expiry of the Defects Liability Period.
- 34.11 The Contractor shall ensure that similar insurance policies are taken out by his sub-contractors (if any) and shall be responsible for any claims or losses to the Company resulting from their failure to obtain adequate insurance protection in connection thereof. The Contractor shall produce or caused to be produced by his sub-contractors (if any) as the case may be the relevant policy, or policies and the premium receipts as and when declared by the Engineer-in Charge.
- 34.12 If the Contractor and /or his sub-contractors (if any) shall fail to effect and keep in force their insurance referred to above or any other insurance which he/they may be required to effect under the terms of the contract then and in any such case the Company may without being bound to, effect and keep in force any such insurance and pay such premium or premiums, as may be necessary for that purpose and from time to time deduct the amount so paid by the Company from any moneys due or which may become due to the Contractor or recover the same as a debt due from the Contractor.

#### **Facilities to other Contractors**

35. The Contractor, shall in accordance with the requirements of the Engineer- in- Charge, afford all reasonable facilities to other Contractors engaged contemporaneously on separate contract in connection with the works and for Departmental labour and labour of any other properly authorised authority or statutory body which may be employed at the site on execution of any works not included in the contract or of any contract which the Company may enter into in connection with or ancillary to the works .

#### **Notices to Local Bodies**

36. The Contractor shall comply with and give all notices required under any Government authority, instrument, rule or order made under any Act of Parliament, state Laws of or any regulations or bye - laws of any local authority relating to the works.  
He shall before making any variation from the contract drawings necessitated by such compliance given to the Engineer-in Charge a written notice giving reasons for the proposed variation and obtain the Engineer-in Charge's instructions thereon.
- 36.1 The Contractor shall pay and indemnify the Company against any liability in respect of any fees or charges payable under any Act of Parliament, State Laws or any Government instrument, rule or order and any regulations or by laws of any local authority in respect of the works.

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## Sub Contracts

37. The Contractor shall not sublet any portion of the contract without the prior written approval of the Company / Engineer-in Charge.

## Instructions and Notices

38. Subject as otherwise provided in this contract, all notices to be given on behalf of the Company and all other actions to be taken on its behalf may be given or taken by the Engineer-in Charge or any officer for the time being entrusted with the functions, duties and powers of the Engineer-in Charge.
- 38.1 All inspections, notices and communications, etc. under the contract shall be given in writing and if sent by registered post to the last known place of abode or business of the Contractor shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him.
- 38.2 The contractor or his agent shall be in attendance at the site(s) during all working hours and shall superintend the execution of the works with such additional assistance in each trade as the Engineer-in Charge may consider necessary. Orders given to the Contractor's Agent shall be considered to have the same force as if they had been given to the Contractor himself.
- 38.3 The Engineer-in- Charge shall communicate and or confirm his instructions to the Contractor in respect of the execution of the work in a 'Work Site Order Book' maintained in the office of the Engineer-in Charge and the Contractor or his authorised representative shall confirm receipt of such instructions by signing the relevant entries in this book. If required by the Contractor he shall be furnished a certified true copy of such instruction.

## Foreclosure of Contract in full or in part due to Abandonment or Reduction in Scope of work

- 39 If at any time after acceptance of the tender the Company shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in- Charge shall give notice in writing to that effect to the Contractor and the contractor shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or, advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.
- 40 The Contractor shall be paid at contract rates full amount for works executed at site and, in addition reasonable amount as certified by the Engineer-in Charge for the items hereunder mentioned which could not be utilised on the works to the full extent because of the foreclosure.
- (a) Any expenditure incurred on preliminary site work, eg. Temporary access roads, temporary labour huts, staff quarter and site office, storage accommodation and water storage tanks.
  - (b) i) The Company shall have the option to take over the Contractor's materials of any part thereof either brought to site or of which the Contractor is legally bound to accept the delivery from suppliers (for incorporation in or incidental to the work), provided, however, the Company shall be bound to take over the materials or such portions thereof as the Contractor does not desire to retain; for materials taken over or to be taken over by the Company, cost of such materials. The cost shall however taken into account purchase price, cost of transportation and deterioration or damage which may have been caused to materials whilst in the custody of the Contractor.
  - (ii) For Contractor's materials not retained by the Company, reasonable cost of transporting such materials from site to Contractor's permanent stores or to his other works, whichever is less. If materials are not transported to either of the said places, no cost of transportation shall be payable.
  - (c) If any materials supplied by the Company are rendered surplus, the same except normal wastage shall be returned by the Contractor to the Company at rates not exceeding those at which these were originally issued less allowance for any deterioration or damage which may have been caused while the materials were in the custody of the / contractor. In addition, cost of transporting such materials from site to the Company stores, if so required by the Company,

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- (d) Reasonable compensation for transfer of T&P from site to Contractor's permanent stores or to his other works, whichever is less .If T&P are not transported to either of the said places, no cost of transportation shall be payable.
- 39.2 The Contractor shall, if required by the Engineer-in-Charge, furnish to him books of account, wage books, time sheets and other relevant documents as may be necessary to enable him to certify the reasonable amount payable under this condition.

#### **Termination of Contract for Death**

- 40 If the Contractor is an individual or a proprietary concern and the individual or proprietor dies and if the Contractor is a partnership concern and one of the partners dies then unless the Company is satisfied that the legal representatives of the individual Contractor or of the proprietor of the proprietary concern and in the case of partnership, the surviving partners, are capable of carrying out and completing the Contract the Company shall be entitled to cancel the Contract; as to its incompleted part without the Company being in any way liable to payment of any compensation to the estate of the deceased Contractor and / or the surviving partners of the Contractor's firm on account of the cancellation of the Contract. The decision of the Company that the legal representative of the deceased Contractor or the surviving partners of the contractor's firm cannot carry out and complete the Contract shall be final and binding on the parties in the event of such cancellation the company shall not hold the estate of the deceased Contractor and or the surviving partners of the contractor's firm liable for damages for not completing the Contract.

#### **Cancellation of contract in full or in part**

- 41 If the Contractor
  - (a) At any time makes default in proceeding with the works with due diligence and continues to do so after a notice in writing of 7 days from the Engineer-in-Charge, or
  - (b) Commits defaults in complying with any of the terms and conditions of the Contract and does not remedy it to take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge, or
  - (c) Fails to complete the works or items of work with individual dates of completion, on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge , or
  - (d) Shall offer or give or agree to give to any person in Company's service or to any other person on his behalf any gift of consideration of any kind as an inducement or reward for doing for forbearing to do for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for the Company, or
  - (e) Shall enter into a contract with the Company in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the terms of payment thereof have previously been disclosed in writing to the Engineer-in-Charge; or
  - (f) Shall obtain a contract with the company as a result of ring tendering or other non-bonafide methods of competitive tendering; or
  - (g) Being an individual, or if a firm or any partner thereof, shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any insolvency act for time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any insolvency Act for time being in force for the sequestration of his estate or if a trust deed executed by him for benefit of his creditors; or

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- (h) Being a Company shall pass a resolution or the court shall make an order for the liquidation of its affairs, or a receiver or manager on behalf of the debenture holders shall be appointed for circumstances shall arise which entitled the court of debenture, holder to appoint a receiver or manager; or
  - (i) Shall suffer an execution being levied on goods and allow it to be continued for a period of 21 days; or
  - (j) Assign, transfers, sublets (engagement of labour on a piece-work basis or, of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or attempts to assign, transfer or sublet the entire works or any portion thereof without the prior written approval of the Engineer-in-Charge; the Engineer-in-Charge may, without prejudice to any other right to remedy which shall have accrued or shall accrue thereafter to the Company, by written notice cancel the Contract as a whole or only such items of work default from the contract.
- 41.5. The Engineer-in-Charge shall on such cancellation have power to:
- (a) take possession of the site and any materials, constructional plant, implements, stores, etc. , thereon ;and / or
  - (b) carryout the incomplete work by any means at the risk and cost of Contractor
- 41.2. On cancellation of the Contract in full or in part the Engineer-in-Charge shall determine what amount, if any, is recoverable from the Contractor for completion of the works or part of the works or in case the works or part of the works is not to be completed , the loss or damage suffered by the Company. In determining the amount, credit shall be given to the Contractor for the value of the work executed by him up to the time of cancellation, the value of Contractor's materials taken over and incorporated in the work, and use of tackle and machinery belonging to the Contractor.
- 41.3. Any excess expenditure incurred or to be incurred by the Company in completing the works or part of the works/ or the excess loss or damages suffered or may be suffered by the Company as aforesaid after allowing such credit shall be recovered from any moneys due to the Contractor or any account or under any other contract and if such moneys are not sufficient the Contractor shall be called upon in writing to pay the same within 30 days.
- 41.4. If the Contractor shall fail to pay the required sum within the aforesaid period or 30 days the Engineer-in-Charge shall have the right to sell any or all of the Contractor's unused materials, constructional plant, implements, temporary building, etc., and apply the proceeds of sale thereof towards the satisfaction of any sum due from the Contractor under the contract and if there after there be any balance outstanding from the Contractor, it shall be recovered in accordance with the provisions of the contract.
- 41.5. Any sums in excess of the amounts due to the Company and unsold materials, constructional plant, etc., shall be returned to the Contractor, provided always that if cost or anticipated cost of completion by the Company of the works or part of the works is less than the amount which the Contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the Contractor.

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### **Liability for Damage Defects or imperfection and Rectification Thereof**

- 42.1 If the Contractor or his workmen or employees shall injure or destroy any part of the building in which they may be working or any building, road, fence, etc., contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work while the in progress the Contractor shall upon receipt of a notice in writing in that behalf make the same good at his own expense. If it shall appear to the Engineer-in-Charge or his representative at any time during construction or reconstruction or prior to the expiration of the Defects Liability Period, that any work has been executed with unsound, imperfect or unskilled workmanship or that any materials or articles provided by the Contractor for execution of the work are unsound, or of a quality inferior to that Contracted for, or otherwise not in accordance with the contract, or that any defect, shrinkage or other faults have appeared in the work arising out of defective or improper materials or workmanship, the Contractor ,shall upon receipt of a notice in writing in that behalf form the Engineer – in – Charge, forthwith rectify or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, and / or remove the materials or articles so specified and provide other proper and suitable materials or articles at his own expense, notwithstanding that the same way have been inadvertently, certified and paid for and in the event of his failing to do so within the period to be specified by the Engineer-in-Charge may rectify or remove and re-execute the work and / or remove and replace with others the materials or articles complained of, as the case may be by other means at the risk and expense of the Contractor.
- 42.1 In case of repairs and maintenance works, splashes and droppings from whitewashing, painting etc. shall be removed and surfaces cleaned simultaneously with completion of these items of work in individual room, quarters or premises, etc. where the work is done without waiting for completion of all other items of work in the contract .In case the Contractor fails to comply with requirements of this condition, the Engineer-in-Charge shall have the right to get the work done by other means at the cost of Contractor. Before taking such action, however the Engineer-in-Charge shall given three days notice in writing to the Contractor.

### **Urgent Work**

43. If any urgent work in respect whereof the decision of the Engineer- in- Charge shall be final and binding necessary and the Contractor is unable or unwilling at once to carry it out, the Engineer-in-Charge may by his own or other work people carry it out as he may consider necessary. If the urgent work shall be such as the Contractor is liable under the contract to carry out at his expense, all expenses incurred on it by the Company shall be recoverable from the Contractor and be adjusted or set off against any sum payable to him.

### **Changes in Constitution**

44. Where the Contractor is a partnership firm, prior approval in writing of the Engineer-in-Charge shall be, obtained before any change is made in the constitutional of the firm. Where the Contractor is an individual or a Hindu Undivided Family business concern such approval as aforesaid shall likewise be obtained before the 'Contractor enters into any partnership firm when only he would have the right to carry out the work hereby undertaken by the Contractor .If prior approval as aforesaid is not obtained the contract shall be deemed to have been assigned in contravention of conditionb41 (j) hereof and the same action may be taken and same consequences shall ensure provided as for in the said condition(41)

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### Training of Apprentices

45. The Contractor shall during the currency of the contract when called upon the Engineer-in-Charge engage and also ensure engagement by sub contractor and others employed by the Contractor in connection with the works, such number of Apprentices in the categories as mentioned hereunder and for such periods as may be required by the Engineer-in-Charge. The Contractor shall train them as required under the Apprentices Act, 1961 and shall be responsible for all obligations of the employer under the Act including the liability to make payment to apprentices as required under the Act.

Category	Ratio	Plumber		Workers	
		Upto	2		Nil
Brick-Layer	1:7	"	3	"	2
Brick Mason/Building Construction	1:7	"	4	"	3
Carpenter	"	"	5		4
Wiremen	1:7	"	6	"	5
Structural Fitter	1:3	"	7	"	6
		"	8	"	7
		"	9	"	8
		"	10	"	8
			and thereafter 1:2		

## VALUATION AND PAYMENT

### Records and Measurement

46. The Engineer-in-Charge shall except as otherwise stated as certain and determine by measurement the value in accordance with the contract of work done in accordance therewith.
- 46.1 All items having a financial value shall be entered in Measurement Book, Level, and Book etc., prescribed by the Company so that a complete record is obtained of all work performed under the contract.
- 46.2 Measurement shall be taken jointly by the Engineer-in-Charge or his authorised representative and by the Contractor. If the Contractor fails to attend or send an authorised representative for measurement, after such a notice or fails to countersign or to record the objection within a week from the date of measurement then in any such event measurements taken by the Engineer-in-Charge or by the person deputed by him shall be taken to be the correct measurement of the work.
- 46.3 The Contractor shall, without extra charge, provide assistance with every appliances, labour and other things necessary for measurement.
- 46.4 Measurement shall be signed and dated by both parties each day on the site on completion of measurement. If the contractor objects to any of the measurements, recorded on behalf of the Company a note to that effect shall be made in the measurement book against the item objected to and such note shall be signed and dated by both parties engaged in taking the measurements.

### Methods of Measurement

47. Except where any general or detailed description of the work in quantities expressly shows to the contrary, Schedule of Quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure set forth in the Schedule of Rates / Specification notwithstanding any provision in the relevant Standard Method of Measurement of any general or local custom. In the case of items which are not covered by the Schedule of Rates/Specification, measurement shall be taken in accordance with the relevant Standard Method of Measurement issued by the Bureau of Indian Standards.

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### Payment on Account

48. Interim bills shall be submitted by the Contractor for the work executed. The Engineer-in-Charge shall then arrange to have the bill verified by taking out causing to be taken, where necessary, the requisite measurements of the work.
- 48.1. Payment on account for amount admissible shall be made on the Engineer- in-Charge certifying the sum to which the Contractor is considered entitled by way of interim payment for the following.
  - (a) all work executed after deduction there from the amount already paid, the security deposit and such other amounts as may be deductible or recoverable in terms of the contract.
  - (b) 75 percent of the cost (as assessed by the Engineer-in-Charge) of any materials which are in the opinion of the Engineer-in-Charge reasonably required in accordance with the contract and have been brought to site for incorporation in the works and are safeguards against loss due to any cause whatsoever to the satisfaction of the Engineer-in-Charge but, have not been so incorporated, provided the Contractor provides an insurance cover or the full cost of perishable materials.
- 48.2. The advance payments under (b) above shall be adjusted as and when the materials are utilised in the works
- 48.3. Any interim certificate given relating to work done or materials delivered, may be modified or corrected by any subsequent interim certificate or by final certificate. No certificate of the Engineer-in-Charge supporting an interim payment shall of itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract
- 48.4. Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided.

### Time Limit for Payment of Final Bill

49. The final bill shall be submitted by the Contractor within three months of physical completion of the works. No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payment of those items of the bill in respect of which there is no dispute and of items in dispute for quantities and rates as approved by Engineer-in-Charge, shall be made within the period specified here under, the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge
  - (a) Contract amount not exceeding Rs5Lakhs - 4Months
  - (b) Contract amount exceeding Rs5Lakhs - 6Months
- 49.1. After payment of the amount of the final bill payable aforesaid has been made, the Contractor may, if he so desire reconsider his position in respect of the disputed portion of the final bill and if he fails to do so within 90 days, his disputed claim shall be dealt with as provided in the contract.

### LOANS

51. Loans will, subject to availability of funds and, if required by the Contractor, be given as under within 6 weeks of submission of application by him subject to other conditions being fulfilled and the Engineer-in-Charge certifying the sum to which the Contractor is entitled by way of loan:  
In case of contracts valued at over Rs.20 Lakhs
  - (a) For plant and equipment specifically acquired for the work and brought to site ,at 75% of the purchase price of new machinery, against production of documents in support thereof and subject to the condition that the Engineer-in-Charge considers the price reasonable and that such plant and equipment are necessary for the works and not in excess of requirements and are hypothecated in favour of the company in the form required by the Company. Interest on the sum outstanding shall be levied at the appropriate percentage determined by the Engineer-in-Charge. Loan against the plant and equipment shall in no case exceed six percent of the contract sum.

Signature of Contractor



- (b) A lumpsum advance not exceeding 4% of the contract sum against guarantee acceptable to the Company at the appropriate rate of interest determined by the Engineer-in-Charge. The advance shall be utilised for the purpose of this contract only and for no other purpose. Provided that if a request for loan is made by the Contractor against both the aforementioned provision this condition, viz. (a)&(b) the total sum given as loan shall not exceed 8% of the contract sum.
- 51.1 Recovery of the sums loaned against (a) and (b) above and of interest thereon shall be made by deduction from the on account payments referred to in condition 48 in suitable percentages in relation to the progress, as fixed by the Engineer-in-Charge, so that all the sums loaned with interest thereon shall be fully recovered by the time work amounting to nearly 80% of the contract sum is completed. If the amount payable under any interim bill is not sufficient to cover all deductions to be made for sums loaned and other sums deductible therefrom, the balance outstanding shall be deducted from subsequent interim bill/bills as may be necessary, failing that as otherwise provided for in the contract.
- 51.2 If for any reason, except a default of the Contractor, the work under the contract is suspended or is to be suspended for more than 15 days, the Contractor shall be at liberty to remove the plant and equipment or any part thereof hypothecated to the Company under clause (a) above to any works site of the Contractor for carrying on his other works, and his furnishing prior to such removal Bank guarantee acceptable to the Company for the amount of the outstanding loan granted under clause (a) above with interest and undertaking to bring back to the site, before expiry of the period of suspension, the plant and equipment as may be necessary for completion of the works. If such plant and equipment are not brought back, the Contractor shall forthwith repay the amount of the loan outstanding with interest.

### **Over payments and Underpayments**

- 53 Whenever any claim for the payment of a sum of money to the Company arises out of /under this contract against the Contractor the same may be deducted by the Company from any sum then due or which at any time thereafter may become due to the Contractor under this contract failing that under any other contract with the Company or from any other sum due to the Contractor from the Company (which may be available with the Company) or from his security deposit, or shall pay the claim on demand.
- 53.1 The Company reserves the right to carry out post payment audit and technical Examination of the final bill including all supporting vouchers, abstracts etc. The Company further reserves the right to enforce recovery of any overpayment deducted, notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an arbitrator appointed under condition 54 of this contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award.
- 53.2 If as result of such audit and technical examination any overpayment is discovered in respect of any work done by the Contractor or alleged to have been done by him under the contract, it shall be recovered by the Company from the Contractor, by any or all of the methods prescribed above or if any underpayment is discovered the amount shall be duly paid to the Contractor by the Company.
- 53.3 Provided that the aforesaid right of the Company to adjust over payments against amount due to the Contractor under any other contract with the Company shall not extend beyond the period of two years from the date of payment of the final bill or in case of the final bill is a MINUS bill, from the date amount payable by the Contractor under the MINUS final bill is communicated to the Contractor.
- 53.4 Any amount due to the Contractor under this contract for underpayment may be adjusted against any amount then due or which may at any time thereafter become due before payment is made to the contractor from him to the Company on any other contract or account whatsoever.

Signature of Contractor

## Arbitration and Laws

54. Except where otherwise provided in the contract all question and dispute relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and as the quality of workmanship, or materials used on the work, or as to any other question, claim, right matter or thing whatsoever, in any other way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same, whether arising during progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the person appointed by the Head of the Unit. It will be no objection to any such appointment that the arbitrator appointed is a Government Servant / Public Sector employees and that he had to deal with the matters to which this contract agreement relate and that in the course of his duties as such Government Servant / Public Sector employee he had expressed views on all or any of the matters in dispute of difference. The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, the head of the Unit as aforesaid at the time of such transfer, Vacation action of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract, such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. It is also a term of the contract that no person other than a person appointed by such head of the unit aforesaid should act as arbitrator and if for any reason that is not possible the matter is not to be referred to arbitration at all. The arbitrator shall give reasons for the award. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this contract. Subject as aforesaid the provisions of the Arbitration and Conciliation Act, 1996, or any statutory modification or enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause. It is also a term of the contract that the party invoking arbitration shall specify the disputes together with the amount or amounts claimed in respect of each such dispute.
- It is also the term of the contract that if the Contractor(s) do/does not make any demand for arbitration in respect of any claim(s) in writing within 90 days receiving the intimation from the department that the bill is ready for payment, the claim of the Contractor(s) will be deemed to have been waived and absolutely barred and the Company shall be discharged and released of all liabilities under the contract in respect of those claims.
- The entire cost of arbitration including fees to arbitrator, secretarial charges, cost of stamp paper and any other charges shall be shared equally between ITI and the Contractor.

## Laws Governing the Contract

55. The Indian Laws shall govern this contract for time being in force.

## Water and Electricity

- 56.1 Water and electricity required for the work will be provided available at ground level at free cost. The contractor has to make his own arrangement for temporary wiring etc. at his cost.
2. The contractor shall make his own arrangement for water connections and laying pipelines from exiting main source of supply. It should be clearly understand that the Engineer-in-Charge does not guarantee to maintain uninterrupted water supply and it will be incumbent on the Contractor to make alternative arrangement for water at his own cost in the event of any temporary breakdown in the I.T.I Factory water supply, so that progress of his work is not held up for want of water. No claim of damages or refund of water charges will be entertained on account of such breakdown.
57. Sales Tax and /or any other duty or tax including the additional duty or tax by the State legislature or Parliament on the building construction (work contract) shall be and always borne by the Contractor.
58. Delhi Schedule of rates, analysis of rates, and CPWD specifications will also form the part of the contract.

Signature of Contractor

## Price Escalation

59. If the price of materials (not being materials supplied or services rendered fixed prices by the department) and /or wages or labour required for execution of the work increases the contractor shall be compensated for such increase as per BPE and CPWD norms from time to time.

Clause 59 above will be applicable only for those works for which the stipulated period of completion is more than 18 months.

Provided that if the increase in price of materials and / or wages or labour aforesaid, in the opinion of the Engineer-in-Charge is attributable to delay in the execution of the contract on account of the default on the part of the contractor the company shall not be liable to make good nor the contractor shall be entitled to claim the increase in price and / or wages or labour aforesaid.

Provided further that in each case where the contractor claims payment under this clause, the Engineer-in-Charge shall record his decision whether increase in price of materials, labour or wages is attributable to delay on account of the default on the part of the contractor during the period beyond the time as per the agreement or extended time as approved. The decision of the Engineer-in-Charge shall be final and binding on the parties to the contract.

Provided further that the company shall be entitled to the benefit of reduction in price of materials.

## CONTRACTORS LABOUR REGULATIONS

(See Condition 16)

### Definition

1. In these regulations, unless otherwise expressed or included, the following words and expression have the meaning hereby assigned to them.
  - (a) "Labour" means workers employed by a Contractor directly or indirectly through a sub-contractor, or by an agent on his behalf on a payment not exceeding Rs.500/- per month
  - (b) "Fair Wage" means wages which shall include wages for weekly day of rest and other allowances, whether for time or piece-work, after taking into consideration prevailing market rates for similar employments in the neighborhood but shall not be less than the minimum rates of wages fixed under the Minimum Wages Act.
  - (c) "Contractor" for the purpose of these regulations shall include an agent or sub-Contractor employing labour on the work taken on contract
  - (d) "Inspecting Officer" means any Labour Enforcement Officer or Assistant Labour Commissioner of the Chief Labour Commissioner's Organization.
  - (e) "Form" means a form appended to these Regulations.

### Notice of Commencements

- (i) The contractor shall, within SEVEN days of commencement of the work, furnish in writing to the Inspecting Officer of the areas concerned the following information.
  - (a) Name and situation of the work
  - (b) Contractor's Name and Address.
  - (c) Particulars of the Department for which the work is undertaken.
  - (d) Name and address of sub-contractor's as and when they are appointed.
  - (e) Commencement and probable duration of the work.
  - (f) Number of workers employed and likely to be employed.
  - (g) "Fair Wages" or different categories of workers

Signature of Contractor

### 3. (i) **Number of Hours of Work which shall constitute a Normal Working Day**

The numbers of hours, which shall constitute a normal working day for an adult, shall be NINE hours. The working day of an adult worker shall be so arranged that inclusive of intervals, if any, for rest it shall not spread over more than twelve hours on any day. When an adult worker is made to work for more than NINE hours on any day for more than FORTY EIGHT hours in any week, he shall in respect of overtime work, be paid wages at double the ordinary rate of wages.

### (ii) **Weekly Day of rest:**

Every worker shall be given a weekly day of rest, which shall be fixed and noticed at least TEN days in advance. A worker shall not be required or allowed to work weekly rest day unless he has or will have a substituted rest day, on one of the five days immediately before or after the rest day. Provided that no substitution shall be made which will result in the worker working for more than 10 days consecutively without a rest day for a whole day.

Where in accordance with the foregoing provisions a worker works on the rest day has been given a substituted rest day he shall be paid wages for the work done on the weekly rest day at the overtime rate of wages.

### **Note**

The expression ordinary rate of wages means the fair wage the worker is entitled to:

### 4. **Display of Notice Regarding Wages, Weekly Day of Rest, etc.**

The Contractor shall before he commences his work on contract, display and correctly and maintain in a clean and legible condition in conspicuous places on the works, notices in English and in the local Indian Language, spoken by majority of workers, giving the rate of fair wages, the hours of work for which such wages are payable, the weekly rest days workers are entitled to and name and address of the Inspecting Officer. The contractor shall send a copy each such notice to the Inspecting Officers.

### 5. **Fixation of Wage Periods**

The Contractor shall fix the wage periods in respect of which wages shall be Payable. No wage period shall normally exceed one week.

### 6. **Payment of wages**

- (i). Wages due to every worker shall be paid to him direct. All wages shall be Paid in current coins or currency or in both.
- (ii). Wages of every worker employed on the contract shall be paid where the wage period is one week, within THREE days from the end of the wage period and in any other case before the expiry of the 7<sup>th</sup> day or 10<sup>th</sup> day from the end of the wage period according as the number of workers does not exceed 1,000 or exceeds 1,000.
- (iii). When employment of any worker is terminated by or on behalf of the Contractor, the wages earned by him shall be paid before expiry of the day succeeding the one in which his employment is terminated.
- (iv). Payment of wages shall be made at the work site on working day except when the work is completed before expiry of the wage period, in which case final payment shall be made at the work site within 48 hours of the last working day and during normal working time.

### **Note**

The term "Working Day" means a day on which the work on which labour is employed, is in progress

Signature of Contractor

## **7. Register of Workmen**

A Register of Workmen shall be maintained in the Form appended to these regulations and kept at the work site or as near to it as possible, and the relevant particulars of every workmen shall be entered therein within THREE days of his employment.

## **53. Employment Card**

The contractor shall issue an employment card in the form appended, to these regulations to each worker on the day of work or entry into his employment. If worker has already any such card with him issued by the previous employer, the Contractor shall merely endorse that Employment Card with relevant entries. On termination of employment, the Employment Card shall again be endorsed by the Contractor and returned to the worker.

## **9. Register of Wages etc.**

- (i) Register of Wages-cum-Muster Roll in the Form appended to these regulations shall be maintained and kept at the work site or as near to it as possible.
- (ii) A wage slip in the form appended to these regulations shall be issued to every worker, employed by the Contractor at least a day prior to disbursement of wages.

## **10. Fine and Deductions which may be made from Wages**

- (i) Wages of a worker shall be paid to him without any deductions of any kind except the following:-
  - (a) Fines
  - (b) deductions for absence from duty, i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be proportion to the period for which he was absent.
  - (c) Deductions for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money which he is required to account for where such damage or loss is directly attributable to his neglect or default.
  - (d) Deductions for recovery of advance or for adjustment of over payment of wages Advance granted shall be entered in register; and
  - (e) any other deduction which the Company may from time to time allow.
- (ii) No fines shall be imposed on any worker save in respect of such acts and omissions on his part as have been approved by the Chief Labour commissioner.
- (iii) No fines shall be imposed on a worker and no deductions for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) (The total amount of fines which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the wages payable to him in respect of that wage period.
- (v) No fines imposed on a worker shall be recovered from him in installments, or after expiry of sixty days from the date on which it was imposed. Every fine shall be deemed to have been imposed on the day of the act of omission in respect of which it was imposed.
- (vi) The Contractor, shall maintain both in English and the local Indian Language a list, approved by the Chief Labour Commissioner, clearly stating the acts and commissions for which penalty or fine may be imposed on a workmen and display it in good condition in a conspicuous place on the work site.
- (vii) The Contractor shall maintain a register of fines and the register of deductions for damage or loss in the Forms appended to these regulations, which should be kept at the place of work.

Signature of Contractor

## **11. Register of Accidents**

The Contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:-

- (a) Full particulars of the labour who met with accidents.
- (b) Rate of wages.
- (c) Sex
- (d) Age
- (e) Nature of accident and cause of accidents.
- (f) Time and date of accident
- (g) Date and time when admitted in hospital
- (h) Date of discharge from the hospital
- (i) Period of treatment and result of treatment.
- (j) Percentage of loss of earning capacity and disability as assessed by medical officers.
- (k) Claim required to be paid under Workmen Compensation Act.
- (l) Date of payment of Compensation.
- (m) Amount paid with details of the person to whom the same was paid.
- (n) Authority by whom the compensation was assessed.
- (o) Remarks.

## **12. Preservation of Registers**

The Register of Workmen and the register of Wages-cum-Muster Roll required to be maintained under these regulations shall be preserved for 3 years after the date on which the last entry is made therein.

## **13. Enforcement**

The Inspecting Officer shall either on his own motion or on a complaint received by him carry out investigations, and send a report to the Engineer-in-Charge specifying the amounts representing workers dues and amount of penalty to be imposed on the Contractor for breach of these regulations, that have to be recovered from the Contractor indicating full details of the recoveries proposed and the reasons therefore .It shall be obligatory on the part of the Engineer-in-Charge on receipts of such a report to deduct such amounts from payments due to the Contractor .

## **14. Disposal of Amounts Recovered from the Contractor**

The Engineer-in-Charge shall arrange payment to workers concerned within FORTY-FIVE days from receipt of a report from the Inspecting officer except in cases where the Contractor had made an appeal under Regulation 16 of these Regulations in cases where there is an appeal, payment of workers dues would arranged by the Engineer-in-Charge, wherever such payment arise, within THIRTY days from the date of receipt of the decision of the Regional Labour Commissioner (R.L.C)

## **15. Welfare Fund**

All money that are recovered -by the Engineer-in-Charge by way of worker's dues which could not be disbursed to workers within the time limit prescribed above, due to reasons such as whereabouts of workers not being known, death of a worker, etc. and also amounts recovered as penalty, shall be credited to a Fund to be kept under the custody of the company for such benefit and welfare of workmen employed by contractors.

Signature of Contractor

## **16. Appeal Against Decision of Inspecting Officer**

Any person aggrieved by a decision of the Inspecting Officer may appeal against such decision to Regional Labour Commissioner concerned within THIRTY days from the date of the decision, forwarding simultaneously a copy of his appeal to the Engineer-in-Charge. The decision of the Regional Labour Commissioner shall be final and binding upon the Contractor and the workmen.

## **Representation of Parties**

- (i) A workmen shall be entitled to be represented in any investigation or enquiry under these Regulation by an officer of a registered trade union of which he is a member or by an officer of a Federation of trade unions to which the said trade is affiliated or where the workman is not a member of any registered trade union, by an officer of a registered trade union, connected with, or by any other workman employed in the industry in which the worker is employed.
- (ii) A Contractor shall be entitled to be represented in any investigation or enquiry under these Regulations by an officer of an association of Contractors of which he is a member or by **an** officer of Federations of Associations of Contractors to which the said Association is affiliated or where the contractor is not a member of any Association of Contractors, by an officer of Association of Employers, connected with, or by any employer engaged in the industry in which the contractor engaged.
- (iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

## **18. Inspection of books and other Documents**

The contractor shall allow inspection of the Registers and other documents prescribed under these Regulations by Inspecting Officers and the Engineer-in-Charge or his authorised representative at any time and by worker or his agent on receipt of due notice at a convenient time.

## **19 Interpretations etc.**

On any question as to the application, interpretation or effect of these Regulations, the decision of the Chief Labour Commissioner or Deputy Chief Commissioner (Central) shall be final and binding.

## **20. Amendments**

Central Government may, from time to time, add to or amend these Regulations and issue such directions, as it may consider necessary for the proper implementation of these Regulations or for the purpose of removing any difficulty, which may arise in the administration thereof

## **21 Contract Labour (Abolition & Regulation) Act, 1972**

All obligations arising under this Contract consequent on the passing of the Contract Labour(Abolition & Regulation)Act,1972 shall be fulfilled by the Contractor and the company shall have the right to the indemnified by the Contractor in case of any claim, loss, cause of action, by any third party on account of the said Act to this Contract.

Signature of Contractor

## Register of Workmen

### (Regulation-7)

**(THESE ARE ONLY SPECIMEN SEPARATE FORMS TO BE USED FOR ACTUAL USE)**

- (i) Name and address of the Contractor : \_\_\_\_\_
- (ii) Number and date of the contract : \_\_\_\_\_
- (iii) Name and address of the Department  
awarding the contract : \_\_\_\_\_
- (iv) Nature of the contract and location of  
the work : \_\_\_\_\_
- (v) Duration of the contract : \_\_\_\_\_

Sl. No.	Name and Surname of the Workers	Age & Sex Name	Father's/ Husband's	Nature of employment Designation
1	2	3	4	5

Permanent /Home address of Employee (Village.,Dist,Thana)	Present Address	Date of Comme- ncement of Employment	Date of Termination or leaving of employment
6	7	8	9

Signature of thumb impression of the employee	Remarks
10	11

Signature of Contractor



**Employment Card**  
**(Regulation-8)**

**(THESE ARE ONLY SPECIMEN SEPARATE FORMS TO BE USED FOR ACTUAL USE)**

- (i) Name and sex of the Contractor : \_\_\_\_\_
- (ii) Father's / Husband Name : \_\_\_\_\_
- (iii) Address : \_\_\_\_\_
- (iv) Identification Mark : \_\_\_\_\_
- (v) Particulars of the next of kin (Wife/husband and children,if any or of dependent next of kin in case the worker has no wife/husband or child)  
Name: \_\_\_\_\_  
Full Address of Dependents (Specify Village,Dist and State)

Sl. No.	Name and Address of the Employer(specify whether a Contractor or a Sub-Contractor)	Particulars of location or Worksite and description of workdone	Total period for which the worker is employed From.. .....to
1	2	3	4

Actual number of worked Leave taken	(No of days of should be specified)	Nature of work done by the Worker	wage period	wage Rate (with particulars of unit in case of piecework)
5	6	7	8	9

Total wage earned by the worker during the period shown under Col.5	Remark	Signature of the employer
10	11	12

Signature of Contractor

**Register of wages-cum-Muster Roll**  
**Regulation-9**

- (i) Name and address of the Contractor : \_\_\_\_\_  
(ii) No. & Date of the contract : \_\_\_\_\_  
(iii) Name and address Identification Mark: \_\_\_\_\_  
(iv) Nature of the contract and Location of work: \_\_\_\_\_  
(v) Duration of the contract : \_\_\_\_\_  
(vi) Wage period : \_\_\_\_\_

Sl. No.	Name and Surname Designation / of the worker work	Father's/Husband's Name	Sex	Designation/ Nature of work
1	2	3	4	5

Daily attendance (No.of units worked 1,2,3,4,5.....31)	Total Attendance Units	FAIR WAGES PAYABLE	
		Basic	D.A. & other allowances
6	7	8	9

WAGES PAID		OVERTIME WORKED			Total
Basic	D.A, & other allowances	Dates	No.of hours	Overtime wages	wages paid
10	11	12	13	14	15

\_\_\_\_\_  
Signature of Contractor

Deduction from wages					
*Fine	*Deduction for Damage or loss	House Rent	Recovery of advances	Other deduction	Net wages payable
16	17	18	19	20	21

Date of payment	Signature of thumb impression of worker	Remarks
22	23	24

Reasons to be recorded in Column 24.

Signature of Contractor

**Register of Fines**  
( Regulation No.-10-VII)

Sl. No.	Name	Father's/Husband's Name	Sex	Department	Nature and date of the offence for which fine imposed
1	2	3	4	5	6

whether workmen showed cause against fine or not if so, enter date	Rate of wages	Date and amount of fine imposed	Date on which fine realised	Remarks
7	8	9	10	11

**Register of Deduction for Damages or Loss caused to the company by the Neglect or Default of the Employed persons**  
(Regulation No. 10-VII)

Sl. No.	Name	Father's/Husband's Name	Sex	Department	Damage or loss caused with date
1	2	3	4	5	6

whether workmen showed Cause against deduction if so,enter date	Date & amount of deduction imposed	No. of instalment if any	Date on which total amount realised	Remarks
7	8	9	10	11

Signature of Contractor

**Wage Slip  
Regulation-9**

(i) Name of Contractor : \_\_\_\_\_

(ii) Place : \_\_\_\_\_  
: \_\_\_\_\_

1. Name of the worker with Father's/Husband 's Name.

2. Nature of Employment.

3. Wage Period.

4. Rate of Wages Payable

5. Total attendance /Unit of work done

6. Date on which overtime worked

7. Overtime Wages

8. Gross Wages Payable

9. Total deduction(indicating nature of deductions)

10. Net Wages Payable.

\_\_\_\_\_

Contractor's Signature/  
Thumb Impression

Employee's Signature  
Thumb Impression

Signature of Contractor

## **MODEL RULES FOR LABOUR WELFARE: (SEE CONDITION 16)**

### **1. Definitions**

- (a) "Workplace" means a place at which, on an average, twenty or more workers are employed.
- (b) 'Large workplace' means a place at which, on an average, 500 or more workers are employed.

### **2. First Aid**

At every workplace, there shall be maintained in a readily accessible place first –aid appliance including an adequate supply of sterilized dressings and sterilized cotton wool as prescribed in the Factory rules of the State in which the work is carried on. The appliance shall be kept in good order and in large workplace; they shall be placed under the charge of a responsible person who shall be readily available during working hours.

At large workplace, where hospital facilities are not available within easy distance of the works, First aid shall be established and be run by trained compounder. Where large workplace is remotely situated and far away from regular hospital, an indoor ward shall be provided with one bed for every 250 employees. Where large workplace are situated in cities, towns or in their suburbs and no beds are considered necessary owing to proximity of city or town hospitals, suitable transport, shall be provided to facilitate removal or urgent cases to these hospitals.

At other workplace, some conveyance facilities shall be kept readily available to take injured person or persons suddenly taken seriously ill, to the nearest hospital.

At large workplace there shall be provided and maintained an ambulance room of the prescribed sizes, containing the prescribed equipment and in the charge of such medical and nursing staff as may be prescribed. For this purpose the relevant provision of the Factory Rules of the State Government of area where the work is carried on may be taken as the prescribed standard.

### **3. Accommodation for Labour**

The Contractor shall during the progress of the works provide, erect and maintain necessary temporary living accommodation and ancillary facilities for labour at his own expense and to standards and scales as approved by the Engineer-in-Charge.

### **4. Drinking Water**

In every workplace, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking. Where drinking water is obtained from an intermittent public water supply each work place shall be provided with storage where drinking water shall be stored. Every water supply storage shall be at a distance of not less than 15m from any latrine drain or other source of pollution. Where water has to drawn from an existing well, which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such well shall be entirely closed in and be provided with a trap door, which shall be dust and waterproof. A reliable pump shall be fitter to each covered well, the trap door shall be kept locked and opened only for cleaning or inspecting which shall be done at least once a month.

### **5. Washing and Bathing Places**

Adequate washing and bathing places shall be provided separately for men and women such places shall be kept in clean and drained condition.

Signature of Contractor

## 6. Scale of Accommodation in Latrine and Urinals

There shall be provide within the precincts of every workplace latrines and urinals in an accessible place, and the accommodation, separately for each of these, shall not be less than at the following scales:-

	No of Seats
a) Where number of persons does not exceed 50	2
b) Where number of persons exceeds 50 but does not exceeds 100	3
c) For additional persons	3 per 100 or part thereof

In particular cases, the Engineer-in-Charge shall have the power to vary the scale, where necessary

## 7. Latrine and Urinals

Except in workplace provided with water-flushed latrines connected with a water borne sewage system, all latrine shall be provided with receptacles on dry earth system which shall be cleaned at least four times daily and at least twice during working hours and kept in strictly sanitary conditions. Receptacles shall be tarred inside and outside at least once a year if women are employed, separate latrines and urinals, screened from those for men and marked in the vernacular in conspicuous letters "For Women Only" shall be provided on the scale laid down in Rule-6. Those for men shall be similarly marked " For Men Only" A poster showing the figure of a man and of a women shall also be exhibited at the entrance to latrines for each sex, there shall be adequate supply of water closet to latrines and urinals.

## 8. Construction of Latrines

Inside walls shall be constructed of masonry or other non-absorbent materials and shall be washed inside and outside at least once a year. The dates of Cement washing shall be noted in a register maintained for the purpose and kept available for inspection. Latrines shall have at least thatched roof.

## 9. Disposal of Excreta

Unless otherwise arranged for by the local sanitary authority, arrangement for proper disposal of excreta by incineration at the workplace shall be made by means of a suitable incinerator approved by the local, medical, health And Municipal or cantonment authorities alternately excreta may be disposed off by putting a layer of night soil at the bottom of pucca tank prepared for the purpose and covering it with a 15cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn into manure)

The Contractor shall at his own expense, carry out all instruction issued to him by the Engineer-in-Charge to effect proper disposal of soil and other conservancy work in respect of Contractor's work people or employees on the site. The Contractor shall be responsible for payment of any charges, which may be levied by municipal or cantonment authority for execution of such work on his behalf.

## 10. Provision or Shelters During Rest

At every workplace there shall be provided, free of cost, four suitable sheds, two for meals and two others for rest, separately for use of men and women labour. Height of each shelter shall not be less than 3 metres from floor- level to lowest part of roof. Sheds shall be kept clean and the space provided shall be on the basis of at least 0.5sq.m. Per head.

Signature of Contractor

# 11. **Creches**

At place at which 20 or more women workers are ordinarily employed, there shall be provided at least one hut for use of children under the age of 6 years, of such women. Huts shall not be constructed to a standard lower than that of thatched roof; mud floor and walls with wooden planks spread over mud floor and covered with matting. Huts shall be provided with suitable and sufficient opening, for light and ventilation. There shall be adequate provisions of sweepers to keep the places clean. There shall be two 'dais' in attendance. Sanitary utensils shall be provided to the satisfaction of local medical, health and municipal or cantonment authorities. Use of huts shall be restricted to children, their attendants and mothers of children. Where the number of women workers is more than 25 but less than 50, the Contractor shall provide at least one hut and one Dai to look after children of women workers. Size of Creche(s) shall vary according to the number of women workers employed. Creche(s) shall be properly maintained and necessary equipment like toy, etc., provided.

# 12. **Canteen**

A cooked food canteen on a moderate scale shall be provided for the benefit of workers wherever it is considered necessary.

13. Planning, sitting and erection of the above mentioned structures shall be approved by the Engineer-in-Charge, and the whole of such temporary accommodation shall at all times during the progress of the works be kept tidy and in a clean and sanitary condition to the satisfaction of the Engineer-in-Charge and at the Contractor's expense. The contractor shall conform generally to sanitary requirements of local medical, health and municipal or cantonment authorities and at all times adopt such precautions as may be necessary to prevent soil pollution, of the site. On completion of the works the whole of such temporary structures shall be cleared away, all rubbish burnt, excreta or other disposal pits or trenches filled in an effectively sealed off and the whole of site left clean and tidy to entire satisfaction of the Engineer-in-Charge and at the Contractor's expense.

# 14. **Anti – Malarial Precautions**

The contractor shall at his own expense, conform to all anti- malarial instructions given to him by the Engineer-in-Charge, including filling up of any borrow pits which may have been dug by him.

# 15. **Enforcement**

The Inspecting Officer mentioned in the Contractor's Labour Regulations /or any other Officer nominated in this behalf by the Engineer-in-Charge shall report to the Engineer-in-Charge all cause of failure to comply with the provisions of these Rules either wholly or in part and the Engineer-in-Charge shall impose such fines and other penalties as are prescribed in the conditions.

# 16. **Interpretations etc.**

On any question as to the application, interpretation or effect of these Rules the decision of the Chief labour Commissioner or Deputy Chief labour Commissioner Central shall be final and binding.

# 17. **Amendments**

Government may, from time to time, add to or amend these Rules and issue such direction as it may consider necessary for the proper implementation of these Rules or for the purpose of removing any difficulty, which may arise for administration thereof.

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## **Safety Code**

### **(See Condition 16)**

1. Suitable scaffolds shall be provided for workmen for all work that cannot safely be done from the ground or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handhold's shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1/4 horizontal and 1 vertical.
  2. Scaffolding or staging more than 3.25 meters above the ground or floor, swung or suspend from an overhead support or erected with stationary support shall have a guard rail properly attached, bolted, braced and otherwise secured at least 1 meter high above the floor or platform or such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials such scaffolding or staging shall be so fastened to prevent it from swaying from the building or structure.
  3. Working platform, gangways and stairways shall be so constructed that they do not sag unduly or unequally, and if height of platform or gangway or stairway is more than 3.25 meters above ground level or floor level, it shall be closely boarded, have adequate width and suitably fenced, as described in 2 above.
  4. Every opening in floor of a building or in a working platform shall be provided with suitable mean to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of 1metre
  5. Safe means of access shall be provide to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9metres in length, width between side rails in a rung ladder shall in no case be less than 30cm for ladders up to and including 3metres in length. For longer ladders this width shall be increased at least 6mm,for each additional 30cm of length. Uniform step spacing shall not exceed 30cm
- Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites shall be so stacked or placed as to cause danger or convenience to any person, or the public. The contractor shall provide all necessary fencing and light to protect public from accidents and shall be bound to bear expenses of defenses of every suit , action or other proceeding at law that may be brought by any person for injury sustained owing to neglect of the above precaution and pay any damages and cost which may be awarded in any such suit , action or proceedings to any such person or which may with the consent of the Contractor be paid to compromise any claim by any such person .

## **6 Excavation and Trenching**

All trenches 1.5metres or more in depth shall at all times be supplied with at least one ladder for each 30meters in length or fraction thereof. Ladder shall be extended from bottom of trench to at least 1metre, above surface of the ground. Sides of a trench which is 1.5metres or more in depth shall be stepped to give suitable slope, or securely held by timber bracing, so as to avoid the danger of sides collapsing.

Excavated materials shall not be placed within 1.5metres of edge of trench of half of depth of trench, whichever is more. Cutting shall be done from top to bottom. Under no circumstances shall undermining or undercutting be done.

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## 7 Demolition

Before any demolition work is commenced and also during the process of the work:-

- (a) All roads and open areas adjacent to the work site shall either be closed or suitably protected;
- (b) No electric cable or apparatus which is liable to be source of danger over a cable or apparatus used by operator shall remain electrically charged;
- (c) All practical steps shall be taken to prevent danger to persons employed, from risk of fire or explosion, or flooding. No floor, roof, or other part of building shall be so overloaded with debris or materials as to render it unsafe.

8. All necessary personal safety equipment has considered adequate by the Engineer-in-Charge shall be available for use of persons employed on the site and maintained in a condition suitable for immediate use, and the contractor shall take adequate steps to ensure proper use of equipment by those concerned.

- (a) Workers employed on mixing asphalt materials cement and lime mortars / concrete shall be provided with protective footwear and protective gloves.
- (b) Those engaged in handling any materials, which is injurious to eyes, should be provided with protective goggles.
- (c) Those engaged in welding works shall be provided with welders protective eyes shields
- (d) Stonebreakers shall be provided with protective goggle and protective clothing and seated at sufficiently safe intervals.
- (e) When workers are employed in sewers and manholes, which are in use, the contractor's ensure that manhole covers are opened and manholes are ventilated at least for an hour before workers are allowed to get into them. Manholes so opened shall be cordoned off with suitable railing and provided with warning signals or board to prevent accident to public.
- (f) The Contractor shall not employ men and women below the age of 18 on the work of painting with products containing lead in any form. Whenever men above the age of 18 are employed on the work of lead painting, the following precautions shall be taken.
  - i) No paint containing lead or lead product shall be used except to the form of paste or ready-made paint.
  - ii) Suitable faces masks shall be supplied for use by workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scraped.
  - iii) Overalls shall be supplied by the Contractor to workmen and adequate facilities shall be provided to enable working painters to wash during and on cessation of work.

9. When work is done near any place where there is risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the course of work.

10. Use of hoisting machines and tackle including their attachment, anchorage and supports shall confirm to the following.

- (a) i These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept in good repair and in good working order.
- (a) ii Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free in from patent defects.
- (b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffold, winch or give signals to operator.

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- (c) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block use in hoisting or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.
  - (d) In case of departmental machine, safe working load shall be notified by the Engineer-in-Charge. As regards Contractor's machines the contractor shall notify safe working load of each machine to the Engineer-in-Charge whenever he brings it to site of work and get it verified by the Engineer-in-Charge.
11. Motors gearing, transmission, electric wiring and other dangerous part of hoisting appliance shall be provided with efficient safeguards; hoisting appliance shall be provided with such means as will reduce to the minimum risk of accidental descend of load. Adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, working apparel such as gloves sleeves and boots, as may be necessary shall be provided. Workers shall not wear any rings watches and carry keys or other materials, which are good conductors of electricity.
  12. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.
  13. These safety provisions shall be brought to the notice of all concerned by display on a notice board at prominent places at the work spot. Persons responsible for ensuring compliance with the safety code shall be named therein by the Contractor.
  14. To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangement made by the contractor shall be opened to inspection by the Engineer-in-Charge or his representatives and the inspecting officers as defined in the Contractor's Labour Regulations.
  15. Notwithstanding the above conditions 1 to 14, the Contractor is not exempted from the operation of any other Act or Rule in force.

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## SPECIAL CONDITIONS

### 1. General

- 1.1** These special conditions shall be read in conjunction with the description of the item of work in Bill(s) of Quantities, the particular specifications, the C.P.W.D specifications for Delhi works the latest Indian Standard Specification Codes and the drawings. All the above quoted documents shall be considered supplementary to each other, however, in the case of conflict amongst the various provisions.

The following order of precedence shall be adopted: -

- (a) In the case of conflict amongst the provisions of specifications:-
    - i) Provisions in the Particular Specifications
    - ii) Provisions in the Special Conditions
    - iii) Provisions in the C.P.W.D Specifications
    - iv) Provisions in the Indian Standard Specifications/Codes
  - (b) In the case of conflict amongst the Bill(s) of Quantities, Specifications and the Drawing:-
    - i) Provisions in the Bills of Quantities
    - ii) Provisions in the Specifications
    - iii) Provisions in the detailed drawings
    - iv) Provisions in the general Drawings
- 1.2** In case of conflict amongst the various drawings, decision of the Engineer -in-Charge shall be final and binding.
- If specification for any item of work are not covered by any of the document mentioned in para-1 above, the same shall be decided and conveyed by the Engineer-in-Charge to the Contractor and shall be binding upon him/them.
- 1.3** The tenderer is advised to inspect the site to ascertain the nature of site, access thereto, local facilities for procurement of materials and working labour rates prevalent in the area, in fact all matters affecting his prices and execution of the work. The tenderers shall be deemed to have full knowledge of the site and drawings whether or not he actually inspect them.
- 1.4** The contractor shall mobilize and employ sufficient resources to achieve the Detailed schedule with in the broad framework of the accepted methods of working and safety. The contractor shall provide everything necessary for the proper carrying out of the work, including tools, plant and other things.
- 1.5** No additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedules even though the time schedule is approved by the Engineer-in-Charge.
- 1.6** The work shall be executed as per the programme drawn or approved by the Engineer- in-Charge and it shall be so arranged as to have full co-ordination with any other agency employed at site. No claim for idle labour shall be entertained nor shall any claim on account of delay in the completion of the building work be tenable except extension of time secured by the contractor as stated elsewhere.
- 1.7** The Contractor shall permit free access and afford normal facilities and usual Convenience to other agencies or departmental workmen to carryout connected work or other services under separate arrangements. The contractor will not be allowed any extra payment on this account.
- 1.8** The contractor shall provide all equipments, instruments, labour and such other assistance required by the Engineer- in-Charge for measurement of the works, materials etc.
- 1.9** The contractor shall be obliged to carry out additional work to the tune of 25% of the contract value without any enhancement to agreed rates. Up to this limit there should be no adjustments in rates.

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## Annexure-II

### **GENERAL TERMS AND CONDITIONS FOR THE FAS CONTRACTORS**

1. The Contractor shall commence the work within 15 days on issue of notice awarding the work/ work order.
2. The work shall be completed in all respects within 180 days and any delay in the part of the Contractor will render action being taken against him to enforce penal measures similar to the action envisaged in Clause 7, 8 & 9.
3. All materials brought by the Contractor for use in the work has to be examined and approved by the Engineer- in- charge or his representative before use. Inferior or defective materials will be rejected and the Contractor shall substitute them as per the directions of the Engineer-in-charge. Test certificates are to be produced where ever required.
4. The work shall be carried out in accordance with IE Rules, relevant ISI specifications and to the satisfaction of the Engineer-in-charge and in case of defective or improper work or work of poor workmanship the work will be re done, made good or amended as directed by the Engineer-in-charge at the cost of the Contractor.
5. In case of particular part of work not included originally but to be carried out by the Contractor for due completion, payment shall be made to contractors based on the rate derived from the rates for a similar class of work as specified in the Contract for the work or prevailing market rate or as per the CPWD Schedule of prevailing rates.
6. Power required for construction work such as drilling, welding, temporary illumination, etc. will be supplied to the Contractor on free of cost from the existing outlets.
7. In case of abandonment of work by the Contractor during the progress of the work, the Security Deposit at the credit of Contractors shall be forfeited and the balance work will be carried out by engaging a third agency and any extra cost incurred will be recovered from the defaulting Contractor.
8. The work shall be carried out subject to the above conditions and in the event of non-fulfillment on any of the conditions, the Contract will be treated as cancelled and action taken against the contractor deemed fit besides the forfeitures of the Security Deposit at the contractors credit.
9. In case the work is not completed in the manner mentioned above to the complete satisfaction of the company in every respect within the aforesaid time limit of 180 days from the date stipulated in the work order, a penalty of 0.5% of the work order value will be deducted for every week beyond the date stipulated for completion on per day basis, subject however to a maximum of 10% of the value of work order. It is agreed that time is the essence of the contract.
10. The Contractor shall visit the site and shall satisfy himself as to conditions under which the work is to be performed. No extra claim consequence of ignorance or on ground of insufficient description will be allowed at a later date.
11. The Contractor shall have to prepare the Scheme/Drawings for submission to Engineer-in-charge and get the Scheme/Drawings approved. All the work shall be carried out as per approved Scheme and drawings.
12. The Contractor shall submit all the as fitted drawings/ Software backup before submitting the final bill.
13. Contractor has to verify the Schedule of Quantities with site requirements before affecting the supply of materials. After verifying the site, the Contractor has to supply all required materials for completing the work. The materials supplied but not erected (rendered surplus) is the property of the Contractor and hence to be taken out by him. The payment if any made on this account will be deducted from the final bill of the Contractor for the subject work.
14. The Contractor shall make his own arrangement for the safe custody of his store.
15. During the execution of work, if minor alterations/additions are required, the same shall be done and nothing extra shall be paid on this account.

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16. The quantities in the Schedule of quantities are provisional and the Contractor will be paid for the actual quantities of work executed at site at the rates quoted in his tender. The owner reserves the right to increase or decrease any of the quantities or to totally omit any item of work and any claims by the Contractor in this account will not be entertained.
17. The contractors should dispose the debris and rubbish on day to day basis as per directions of Engineer-in-charge. If the debris is not removed within 3 days, the Company will clear the debris and recovery for cost incurred will be debited from contractors account.
18. **The rates quoted shall be inclusive of all Taxes and Duties and also inclusive of PF & ESI contributions to their workmen engaged on the work and are final.**
19. **Taxes on works contract and any other levies that may be enforced by the Government from time to time will be borne by the Contractor. Company will make deduction at source on this account at the prevalent rate as applicable for works contract. Statutory levies like Income tax, ESI etc. are to be borne by the Contractor. Contractor has to produce the muster roll along with ESI numbers, while submitting the bills.**
20. Earnest Money Deposit will be retained by the Company as Security Deposit for the due and faithful fulfillment of the contract by the Contractor. After adjusting EMD the successful contractor has to pay by way of Cash/Bank Draft, the difference between the EMD and 5% of accepted tender value within 7 days of the acceptance of the contract. If the contractor fails to pay the Security Deposit by way of Cash/Bank Draft to make up the Security Deposit 5% shall be enveloped by 5% deduction from the Contractors running bills.
21. Bills shall be submitted in GST Format only. 75% of the supply value will be paid against delivery of materials at site on our inspection and acceptance. 75% of the work value will be paid against completion of the work on our inspection and acceptance. 100% of the contract value will be released after satisfactory completion of the entire work.
22. 50 % of Security Deposit will be refunded after completion of the work and payment of final bills and balance 50% after completion of the Defects Liability period of One Year from the date of completion. During the defects liability period the contractor shall be responsible for any defects in materials or workmanship that may develop in the works and shall remedy the same at his own cost to the entire satisfaction of the Engineer-in-charge.
23. The Contractor shall have to carryout additional works to the tune of  $\pm 20\%$  of total accepted contract value at the accepted rates if required.
24. The work will not be considered as complete till all the component of the Electrical installation provided for the Contractor that has been installed at site in all respects have been inspected/tested by the Engineer-in-charge to his entire satisfaction and a Safety Certificate issued by the Electrical Inspector.
25. Safety is the essence of this work. The contractor has to take all safety precautions during the course of work. The contractor has to make his own arrangements for providing safety appliances to their workmen engaged on the work.
26. The Contractor shall be responsible for any accidents or other compensation payable to the workmen employed and working under the control of the Contractor and the COMPANY has no sort of liability in the matter, and that if any payment would have to be made by the COMPANY the same shall be reimbursed by the Contractor.
27. For items of work involving use of cement, rate quoted shall include the cost of cement unless otherwise specified.
28. The manufactures of the materials required for the work shall be as per the List of Approved Manufactures for different materials
29. For any point not covered under these special conditions companys General Terms and Conditions of contract for Electrical works to be referred and CPWD specifications Vol. I & II, 2014 will also form part of the contract.

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**Deputy General Manager (CS)**

## **ANNEXURE-III**

# **TECHNICAL SPECIFICATION FOR ANALOGUE ADDRESSABLE FIRE ALARM SYSTEM**

## **1.0 ANALOGUE ADDRESSABLE FIRE ALARM SYSTEM**

### **1.1 SCOPE OF WORK**

- 1.1.1 The scope of work under this heading shall include designing supplying and installing of Analogue Addressable Fire Detection and Alarm System. The work under this system shall consist of furnishing all materials, equipment, appliances and labour necessary to install the complete Fire Detection and Alarm System, complete with Main Fire Alarm Control Panel, Sensors, Sounders, Strobes, Manual Call Stations, Relays etc. for interfacing with other systems.
- 1.1.2 It shall include laying of cabling duct, conduits and power supply etc., necessary for installation of the system with supply of sensors and devices as appropriate and as indicated in the Specification and Bill of Quantities. Any openings/chasing in the wall/ceiling required for the installation shall be made good in appropriate manner.
- 1.1.3 The Bidder shall also undertake to control and monitor the ventilation and other systems from the Fire Alarm Panel through the use of Addressable Output / Input Modules.
- 1.1.4 The Building should be designated as multiple fire zones with each area forming one or more software programmed zones. All wiring shall be done using 2c x 1.5 mm<sup>2</sup> PVC insulated armored copper cable while exposed and in PVC/MS Conduits in concealed in concrete.

### **1.2.1 GLOSSARY OF TERMS**

#### **1.2.1.1 FIRE ALARM PANEL (FACP)**

This refers to the microprocessor-based panel that shall be connected to the various sensors/devices by means of 2 wire loops. The FACP shall be able to supervise individual detectors for proper performance as well as to give pinpoint location of Fire or Fault Alarm and initiate Alarms as well as facility for cutting off of AHU's and Electrical Power is also to be included. The panel shall also have the provision through volt-free contact to activate an Auto-Dialer to dial selected phone numbers in case of fire.

#### **1.2.1.2 LOOP**

A loop shall mean a 2-wire circuit connecting 198 Addressable Devices, which shall include 99 Sensors and 99 Modules. The loop card shall have built-in short circuit isolators to accommodate Class A wiring.

#### **1.2.1.3 ADDRESSABLE DEVICES**

This term indicates the complete group of addressable devices such as Sensors or Detectors, Manual Call Stations, Addressable Output / Input Modules etc.

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#### 1.2.1.4 **SENSORS OR DETECTORS**

The Sensors or Detectors shall be Analogue Addressable type. The chamber should be easily removable for the purpose of easy maintenance. The address programming shall be done through the decade switch in the Detector. The Detectors shall have a common base to allow easy interchange of various types of Detectors. Address setting by DIL Switch shall not be acceptable or through Hand Held Programmer.

#### 1.2.1.5 **MANUAL CALL STATION**

The Manual Call Station shall be addressable type with Input Modules to define the address for each station. The function shall be similar to that of conventional Manual Call Point and should be resettable without replacing the glass.

#### 1.2.1.6 **OUTPUT MODULE**

Output module shall mean Addressable points from the FACP with potential free contacts for tripping of AHUs, power supply etc. as required. Any module shall operate two relay outputs powered from the loop and preferably consuming single address on the loop. The system shall also be able to handle separate modules to interface the speakers of the Public Address System.

#### 1.2.1.7 **INPUT MODULE**

The input modules shall be of dual/single channel type. The dual channel module shall be selectable for Normally Open or Normally Close by a 2 bit DIL switch.

#### 1.2.1.8 **FAULT ISOLATOR**

This unit shall be placed on the loop preferably after every 20–30 devices and shall be able to isolate electrical short circuit in the wiring. All the other detectors shall remain functional because of the Class A wiring of the loop. The isolator shall not utilize an address and shall be built into the detector base wherever required.

#### 1.2.1.9 **SOUNDERS/HOOTERS**

Each sounder shall be of addressable type. The sounders shall derive power either from Loop itself. It shall be capable of being directly mounted on the wall/ceiling or along with the detector. The sounder shall have an output of at least 90db at 1 mtr. The sounder shall be programmed to activate in event of an alarm from a single detector/device or a group of detectors/ devices.

### **1.3 SPECIFICATION**

1.3.1 The design, supply and installation and testing of the entire fire alarm system shall conform to EN 54 / BS: 5839 or NFPA 71 and 72. The detectors shall conform to relevant codes for Fire Alarm Systems.

1.3.2 A general line diagram showing the circuit and spacing of detectors is to be enclosed. The quantity mentioned in the Price Schedule shall be quoted for. Unit rates shall apply in the event of any variance.

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**1.4 FIRE ALARM SYSTEM**

- 1.4.1 The Fire Alarm System shall confirm to EN54, BS: 5839 or NFPA 71/72 in respect of design and installation, and it shall give Audio/Visual Alarm Signals when there is rise in temperature in case of Heat Detector or while measuring Smoke Density in case of Smoke Detector, while it exceeds the pre-set limit. The system shall give pinpoint location of fire with warning system and voice communication for commands and instruction if required.
- 1.4.2 The system shall have a microprocessor-based control and monitoring facility. The basic function of the system shall be able to achieve pinpoint location of alarm indication.
- 1.4.3 It shall be possible to program each loop with up to 99 Detectors & 99 Modules in a circuit.
- 1.4.4 Annunciation facility shall also be inbuilt into the FACP, the panel being able to initiate alarm signal for any particular zone.
- 1.4.5 The system shall be fully supervised for all fault conditions with distinctive alarm operated for fault and fire conditions. Test buttons and software features shall be provided to test the electronic circuits and Detector health.
- 1.4.6 The FACP shall be so programmed that when a particular Detector or group of detectors gives a fire signal the FACP should be able to trip an individual AHU automatically. In case of Fire in an area handled by an AHU the FACP shall be able to trigger a Relay that shall shut off the AHU through an additional contact provided in the AHU panel by the AC contractor.
- 1.4.7 The FACP shall have facility to connect addressable Input / Output Devices in the peripheral RS 485 bus. These may be 8 way input card, 4 way relay card, 4 way sounder card, passive/active repeater panels and mimic driver cards.
- 1.4.8 The system shall be based on an "Open Protocol" to ensure flexibility of using Sensors / Detectors of an alternate manufacturer, in case the user requires such an option at a later date.

**1.5 FIRE ALARM CONTROL PANEL (FACP)**

- 1.5.1 The Fire Alarm Control Panel shall be micro processor based fully Analogue Addressable, Analogue Control Unit which shall control all Analogue Addressable Detectors, Manual Call Stations and Switching Systems (for disconnecting AHU and power supply) connected to it.
- 1.5.2 All addressable units shall be connected to the FACP through the Loop Cards and shall be addressed through individual numbers. The FACP shall be able to obtain analogue value for all detectors in the circuit through a pulsed digitalized current data. The FACP shall be able to analyze all analogue inputs from all addressable units, and through its own software and ambient level screening the FACP shall be able to identify fire, possible fire or fault conditions. The unit supervision shall be dynamic and continuous.

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- 1.5.3 The FACP shall itself have one loop card built in. The loop shall be able to address 99 addressable detectors & 99 devices. Atleast 99 FACP units may be networked to enhance system capacity as and when required. All the networked panels shall display all the events occurring anywhere in the system. Each FACP on the network shall effectively function as a repeater panel as well.
- 1.5.4 The FACP shall also give adequate warning signal whenever there is dust accumulation in detectors, and up to the point of its replacement it should be possible to change the level of ambient alarm calibration condition either by the use of software program operable by the owner or by resetting the detector.
- 1.5.5 Short / Open circuit units shall also be reported at the FACP In such cases, the system through the use of fault isolators shall be able to isolate that segment between the two fault isolators. The missing Detectors/Devices shall also be reported at the FACP with identification of the location.
- 1.5.6 The FACP shall have the facility to set sensitivity of each smoke sensor remotely. It shall also be possible to set the sensitivity to a global high or global low based on night or daytime.
- 1.5.7 When an alarm condition is sensed at the FACP from a smoke or heat detector, a delay time/alarm verification period shall be started. If the sensor is still in alarm after the delay time expires, an alarm condition is reported. The delay time shall be adjustable from 0 to 990 sec's.
- 1.5.8 The FACP shall have the facility to perform walk test such that an operation can be periodically checked out for all initiating devices. As each device is placed into alarm the FACP shall print the condition and automatically rest the device. Audible devices shall be initiated, if required at a preprogrammed time. If a zone is inadvertently left in walk test mode, it shall automatically reset to normal after the idle time is exceeded. During the walk test the zones other than the programmed zones shall be under continuous supervision (normal mode). In case of any alarm initiated by detector/devices the walk test shall get terminated automatically.
- 1.5.9 Programming functions shall include alarm/trouble type assignment, point descriptor assignment, alarm message assignment, etc.
- 1.5.10 Programming may be carried out from the FACP keyboard or utilizing the approved PC setup software via laptop/desktop computer.
- 1.5.11 The FACP shall have a Liquid Crystal Display of Alphanumeric type to indicate immediately all conditions. The display should be high resolution, backlit 2 (lines) x 40 character. In case of testing of the system from the FACP the Display shall be able to give readouts of analogue value of all detectors being tested. The FACP shall also be able to carry out continuous self-monitoring when in normal condition.
- 1.5.12 The FACP shall have facility for in-built or external printer coupled to the FACP, which shall log all events with time. The printout shall clearly indicate the event - Fire/Pre Alarm/Fault etc. With the unit address and time.
- 1.5.13 The FACP shall also be able to discriminate between false alarms and fire conditions, as well as priority selection of alarm in case alarm activates in two or more remotely located units simultaneously. In such cases, the Manual Call stations shall have the highest priority.

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- 1.5.14 The FACP also is able to actuate switches automatically in case of Fire condition that of AHU's and power supply or other systems such as Gas Extinguishing Systems.
- 1.5.15 In this respect the bidder is required to take note of clause relating to cutting off of AHU's given above. The bidder shall note that the Client shall provide no additional facilities for completion of this mechanism other than that specified in clause 1.4.6.
- 1.5.16 The System shall be fail safe and adequate safe guards should be under taken that in the event of a failure of a part of the System it shall not handicap the complete System. The Loop Cards shall be of Modular Construction.
- 1.5.17 The Bidder shall undertake the responsibility of the complete installation, commissioning, user trials, training and maintenance of the System as required. The Bidder shall take all responsibility for preparation and installation of System Software into the FACP. The Software shall be such so as to be easily operated by the Client's Personnel and secured against Software errors, ability to be upgraded so as to incorporate more features at a later date.
- 1.5.18 The FACP shall have its own Battery Backup of a minimum of 48 hours in normal condition and then half an hour in alarm condition. The back up time calculation shall be done as per IS 2189 standards. The Battery shall be 2\*12V (24V) DC and of sealed lead acid rechargeable maintenance free type, housed inside the FACP.
- 1.5.19 It shall be able to withstand temperature variations from 0<sup>0</sup> centigrade to 55<sup>0</sup> centigrade. Further, Relative Humidity (non-condensing type) up to 95% shall not hamper its performance. The voltage rating shall be from 15V DC to 32V DC, though the voltage may be change depending upon the working voltages of a proprietary FACP.
- 1.5.20 The FACP shall be totally enclosed dust and vermin proof type made of minimum 16 gauge dust inhibited sheet with even baked finish. The FACP shall be of completely solid stage design.
- 1.5.21 The logic circuitry shall be based on high noise immunity solid state hardware employing modular construction. Logic cards shall be of epoxy fiber glass construction.
- 1.5.22 The FACP shall have any one of these approvals: EN 54:LPCB, UL and FM.
- 1.5.23 The system shall be designed such that it shall be possible to add atleast 20% of the Detectors for future expansion without extra cost on the panel.
- 1.5.24 The FACP shall be capable of being networked (future expansion) with other similar FACP's located at different part of the premises through a single RS485 bus.
- 1.5.25 The FACP shall have provision for interfacing with the Public Address System.
- 1.5.26 The Panel should have a minimum of 20 zones and each zone shall have an LED to indicate independently fire and fault conditions on the panel fascia.
- 1.5.27 The panel should have the facility to interface with an automatic two-channel programmable speech dialer for verbal reporting of fire. It shall be able to call four telephone numbers per channel. The programmable speech dialer shall have two alarm inputs and shall provide listen-in capabilities through the built-in microphone. The dialer shall have a built-in keypad for easy operation, programming and voice recording.

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## **1.6 ADDRESSABLE DETECTORS**

### **A. SMOKE DETECTOR**

- 1.6.1. All detectors are fitted with plug-in system type connections, from the maintenance and compatibility point of views. An alarm release will not effect a detector's good functioning. After resetting the alarm, the detector will resume operations without readjustment of any kind.
- 1.6.2. The detector shall be high performance optical type. Detectors using radioactive elements shall have BARC approval.
- 1.6.3 The detector shall be able to sense incipient fire by detecting the presence of visible and invisible products of combustion. The detector shall be suitable for low voltage (15 to 32 V DC) two wires supply. The detector shall be provided with Twin LED indication and the sensitivity of the detector shall not vary with change in ambient temperature, humidity, pressure or voltage variation.
- 1.6.4 Neither its performance shall be affected by air current up to 1.52mtr per second. The detector shall be suitably protected against dust accumulation/ ingress and it shall be free from maintenance and functionally tested at intervals. All detectors shall be identical in construction design and characteristic to facilitate easy replacement.
- 1.6.5 The coverage per smoke detector shall strictly follow IS 2189 standards. It shall be possible to connect Smoke Detector with Heat Detector or Manual Push Button in the same circuit. The sensitivity of detector shall be set from the FACP to suit the site requirement.
- 1.6.6 It shall have in-built locking mechanism to check the removal and pilferage of the detector. The quiescent current flow must not exceed 250 microamps and alarm condition current shall be maximum 10 milli amps.
- 1.6.7 The Photoelectric type Smoke Detector shall be Analogue Addressable type and be able to send analogue output to the FACP regarding its condition. It shall be able to communicate with the FACP by the pulses emitted from the FACP. The detector should be programmed using a decade or rotary switch.
- 1.6.8 The base of the Detector shall be electronics free and interchangeable with other smoke or heat detectors. The enclosure shall meet IP 42 protection grade.
- 1.6.9 It shall be able to withstand temperature variations from - 10 degree centigrade to 50 degree centigrade. Further, Relative Humidity (non-condensing type) up to 80% shall not hamper its performance. The voltage rating shall be from 15V -32V DC though the voltage may be changed depending upon the working voltages of a proprietary FACP.
- 1.6.10 The Detector shall have LPCB or UL/FM approval. It shall be possible to test the Detectors working both from the FACP as well as locally by means of a magnet to simulate a Functional Test Condition.
- 1.6.11 It shall be possible to mount the detectors in Duct Casting Unit for sampling of Supplying Air from the AHUs.

Secondary response indicators shall be provided for all the Above False Ceiling Detectors.

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- 1.6.12 The detector shall have twin LED's for 360 degree viewing angle. LED on the detector shall blink each time the sensor is scanned by the FACP. If the FACP determines that the sensor is in alarm, the FACP will command the sensor LED to remain on to indicate the same. Each sensor will be capable of being tested for alarm via command from the FACP. Each sensor shall respond to FACP scan with the information about its type for identification.
- 1.6.13 It shall be possible to connect loop powered base sounders on the detector loop. The sounder shall have a sound output of at least 85db and will not require a separate cable for power supply.

**B. HEAT DETECTOR**

- 1.6.14 Heat detector shall provide temperature measurement when it reaches pre-alarm in normal course. However the operator shall have the option of calling up the temperature measured by the specific detector as and when required.
- 1.6.15 It shall have in-built locking mechanism to check the removal and pilferage of the detector. The quiescent current flow must not exceed 200 microamps and alarm condition current shall be maximum 10 milli amps.
- 1.6.16 The heat detector shall be Analogue Addressable type and be able to send analogue output to the FACP regarding its condition. It shall be able to communicate with the FACP by the pulses emitted from the FACP. The detector should be programmed using a decade or rotary switch.
- 1.6.17 The base of the Detector shall be electronics free and interchangeable with other smoke or heat detectors. The enclosure shall meet IP 30 protection grade.
- 1.6.18 It shall be able to withstand temperature variations from - 10 degree centigrade to 60 degree centigrade. Further, Relative Humidity (non-condensing type) up to 80% shall not hamper its performance. The voltage rating shall be from 15V -32V DC though the voltage may be changed depending upon the working voltages of a proprietary FACP.
- 1.6.19 The Detector shall have LPCB or UL/FM approval. It shall be possible to test the Detectors working both from the FACP as well as locally by means of magnet to do a Functional Test.
- 1.6.20 The detector shall have twin LED's for 360 degree viewing angle. LED on the detector shall blink each time the sensor is scanned by the FACP. If the FACP determines that the sensor is in alarm, the FACP will command the sensor LED to remain on to indicate the same. Each sensor will be capable of being tested for alarm via command from the FACP. Each sensor shall respond to FACP scan with the information about its type for identification.
- 1.6.21 It shall be possible to connect loop powered base sounders on the detector loop. The sounder shall have a sound output of at least 85db and will not require a separate cable for power supply.

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### **DHigh Sensitivity Laser Smoke Detectors.**

- 1.6.22 Laser Smoke detector will provide and extremely high Sensitivity to fire conditions, by detecting earliest particle of Combustion.
- 1.6.23 Detector should detect both fast flaming and slow smoldering fires
- 1.6.28 The detector should have 9 different sensitivity levels from (0.07- 6.56% /m).
- 1.6.29 Detector shall have twin LED's for 360 degree viewing angle. LED on  
The detector shall blink each time the sensor is scanned by the FACP.  
If the FACP determines that the sensor is in alarm, the FACP will  
Command the sensor LED to remain on to indicate the same. Each  
Sensor will be capable of being tested for alarm via command from  
The FACP.Each sensor shall respond to FACP scan with the  
Information about its type for identification.
- 1.6.30 it shall be possible to connect loop powered base sounders on the  
Detector loop. The sounder shall have a sound output of at least 85db  
and will not require a separate cable for power supply.
- 1.6.31 The Detector should be 100% times more sensitive than normal  
Smoke Detector.

## **1.7 MANUAL CALL STATIONS**

- 1.7.1 The manual station shall be a press to break type. The device shall be red in color and suitable for surface or flush mounting. Manual stations shall be interfaced to an addressable input module that can be accommodated within the device. The manual station shall have normally open fire alarm and annunciator contacts and these contacts shall close on activation. Contacts shall remain closed until station is manually reset.
- 1.7.2 The Manual Call Station shall be fully addressable with its own addressable module and operated by digitized signals from the FACP. The voltage range shall be from 15V to 32V. It shall have protection as per IP33. The operating temperature range shall be from -10 degree C to 60 degree C. Relative Humidity (non condensing) range of performance parameters shall be between 10 to 93%.

## **1.8 FIRE ALARM REPEATER / ANNUNCIATOR PANEL**

- 1.8.1. The Alarm Repeater/Annunciator Panel shall display fire/fault messages simultaneously with the FACP. It shall be capable of interfacing with the FACP on a single RS 485 Bus. The panel shall be capable of operating on 24 V DC supply.
- 1.8.2. The panel shall have a 2 x 40 character backlit alphanumeric LCD display, which shall display date, time & description of alarm/trouble events that are displayed in the FACP with an inbuilt buzzer to indicate fault/fire alarm.
- 1.8.3. The panel shall be powered from the FACP.
- 1.8.4. It shall have control keys for Sound, Silence, Mute and to reset the FACP from the repeater station.

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1.8.5. The repeater panel shall have the following LED's indications

- a. Supply
- b. Fault
- c. Mute
- d. Silent
- e. Disabled
- f. Fire

## **1.9 SOUNDER/HOOTERS CUM STROBES**

1.9.1 The sounder shall be Addressable Loop Powered electronic type and shall give discontinuous/ intermittent audible alarm whenever any detector or MCP operates.

1.9.2 The sound output from the Hooter should not be less than 85 decibels at the source point.

1.9.3 The sounder/Hooter shall be powered from either 2 wire detector loop or separate power supply 24 VDC can be used or additional cable shall be used in case of external power supply.

1.9.4 At 24 volts, 15, 15/75, 30, 75, 95, 110, 115, 135, 150, 177, or 185 candela by way of a rear-mounted slide switch and front Viewing window

1.9.5 The horn/strobe shall be listed to UL 1971/ UL 464/LPCB and shall be

Approved for fire protective service. The horn/strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The horn shall have three audibility options and an option to switch between a Temporal 3 pattern and a Non-Temporal (continuous) pattern. These options are set by a multiple position switch. On four-wire products, the strobe shall be powered independently of the sounder. The horn on horn/strobe models shall operate on a coded or non-coded power supply.

## **1.10 DUCT CASTING UNIT**

The Duct Casting Units are to be directly installed in the return

Air conditioning ducts for detecting any hazardous quantity of products of combustion be carried through the ducts.

The complete unit shall consist of Polycarbonate housing to accommodate Photo Electric Detector with plug - in facility and sampling tubes, one for Air inlet and other as the air outlet.

The Inlet tube shall extend into and across the duct width (from 0.5 meter to 3.0 meter); the outlet tube shall be of fixed length of 7.5-cm length.

When the AHU blower fans shall operate a continuous cross sectional

Sampling of air from the duct shall flow through the housing containing the

Detector. The outlet tube shall return the sampled air into the duct.

The functional requirements of the Duct Casting Unit shall be:

- i) Uniform Sensitivity - irrespective of air velocity - up to 1200 meters per minute.
- ii) It shall function on the Venturi principle, with Aluminum Venturi tubes.

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- iii) The Duct Casting Unit shall be compact, easy to install and with the facility to dismantle the cover or Detector for maintenance purposes.
- iv) The housing shall be mounted outside the duct; the probe tubes shall be inserted through the duct by cutting precision sized holes into the duct and sealed with rubber gaskets.
- v) The Duct Casting Unit shall be LPCB/UL Approved.

#### **1.11 ADDRESSABLE MONITOR MODULE**

- 1.11.1 The monitor module shall provide an addressable input for N.O. or N.C. Contact devices such as manual stations, Water flow switches, sprinkler Supervisory devices, etc.
- 1.11.2 It shall provide a supervised initiating circuit. An open-circuit fault shall be Annunciated at the Fire Alarm panel (Subsequent alarm shall be reported.)
- 1.11.3 The device shall contain an LED, which blinks upon being scanned by the Fire alarm panel. Upon determination of an alarm condition of an alarm condition, the LED shall be latched on.
- 1.11.4 The device shall have a selectable inbuilt fault isolator.

#### **1.12 ADDRESSABLE CONTROL MODULE**

- 1.12.1 Addressable Control Module shall be provided to operate dry contacts for switching ON OFF pressurization fans, AHU' s etc. in case of fire etc.
- 1.12.3 It shall have a built in type identification to automatically identify this Device to the control panel.
- 1.12.4 It shall have internal circuitry & relay powered directly by two-wire loop.
- 1.12.5 It shall have a selectable inbuilt fault isolator.

#### **1.13 FAULT ISOLATOR MODULE**

- 1.13.1 The Fault Isolator Device shall detect and isolate a short-circuited segment of a Fault-tolerant loop.
- 1.13.2 The device shall automatically determine a return to normal condition of the Loop and restore the isolated segment.
- 1.13.3 The fault isolator device shall be placed at least every [20] devices to limit the Number lost in the event of a short-circuit/wiring fault.

#### **1.14 GRAPHIC MONITORING SOFTWARE**

- 1.14.1 The Graphic Software shall Provide both Alarm Management and system maintenance tool.
- 1.14.2 All the information is available on a single screen allowing quick Assessment, whilst any actions can be taken by accessing the Built-in menus. Building Evacuation, Alarm Silencing and Reset are available to any users with suitable security clearance.

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- 1.14.3 System maintenance can be performed on any device or zone whether the workstation is connected to a single panel or a series of networked panels. From a single location simple checks can be performed to assess the status of individual devices, whilst devices and zones can easily be temporarily isolated for on-site works to be performed. Advanced functionality is available to users with level 3 access permitting the maintenance of PC software security passwords, Time & Date setting and control of the workstation functionality.
- 1.14.4 The schematic view offers users the site plan. It can be configured to provide a number of levels representing the overall site, individual floor plans, small sections of the floor plans or even individual rooms. Each plan is independently named and can be configured to show all devices as installed on the site.
- 1.14.4 The event log details a complete history of the activity of the fire system.  
All major control actions are recorded with date, time, user and an  
Optional comment field. Entries are colour coded to help easy  
Identification of specific types of events.

## **1.15 FIRE ALARM SYSTEM TESTING**

### **1.15.1. FACP**

- a. The FACP shall be checked for basic tests such as visually checking input voltage and amperage. All zones one by one shall be de wired to check for fault signal indication in the FACP.
- b. The Power Source shall be cut off and checked for stand by Supply from the Batteries. After six hours the FACP Source shall be switched on to check for auto switch over to the Mains mode.
- c. Tests shall be conducted for AC fail, charger fail, DC fail, Battery Disconnect or Battery fail. In all such cases the relevant L E D should glow and the piezo sound shall also give sound output.

### **1.15.2 SMOKE DETECTOR**

- a. The testing shall be carried out for each loop / zone, initially one detector in a zone and subsequently 2 or more disassociated detectors in each zone with time lapse between the detectors to test for Alarm Priority, Alarm Queuing and Call Logging.
- b. An identified detector will be subjected to smoke aspiration from burning paper/cigarette puffs, rubber and other materials which give dense smoke held at 0.3 M distance from the detector. The FACP should indicate increased analogue output for that address and after the programmed delay time, a fire alarm signal shall be indicated. This delay shall be utilised for alarm verification.
- c. The same test shall be carried out for two detectors in the same Loop but in different rooms. The FACP shall indicate Pre Alarm higher analogue levels for both detectors in its display with separate identification for both fires. One of the detectors in question is subjected too higher and longer levels of smoke aspiration. The FACP should give priority alarm for this address. The printout shall indicate individual addresses of the detectors with achieved analogue values and the time of event.
- d. This test shall be carried out for different Loops as well as for 2 Loops simultaneously.

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### 1.15.3 HEAT DETECTOR

- a. The same tests in the same sequence shall be carried out for this Detector but with the application of hot air from a hair dryer held at approximately 60 cm distance.

### 1.15.4 COMBINED TEST

- a. The next test will be in combination of Photoelectric / Heat Detectors simultaneously with time lapse between application of smoke or heat or as required by the Client.

### 1.15.5 ADDITIONAL TEST

- a. One detector of each type will be disconnected and subjected to slow dust build - up by means as desired by the Bidder and again connected in the circuit.
- b. The FACP shall indicate the changed ambient levels and automatically adjust the analogue values for the same. These Detectors are to be replaced by new Detectors of identical type and the FACP shall then be programmed accordingly and checked. The Bidder will take custody of the removed detectors without additional cost to the Owner.
- c. Any part of the Loop shall be short-circuited. The FACP shall indicate the communication failure of all the devices connected in the short-circuited segment. After the short circuit is corrected, the Fault Isolator shall return to its normal status automatically, this being reflected in the FACP. The Loop shall then be in normal operation again. Any part of the Loop shall be de wired and tested as given above.

- 1.15.6 All other tests as required by the client at the time of handing over.

### FIRE ALARM CONTROL PANEL

Type	:	Analog Addressable
Type of display	:	LCD
Display of	:	ALL EVENTS
Addressable capability	:	99 detectors & 99 devices per loop
Intelligent capability	:	Yes
Fault-isolation capability	:	Yes
Alarm delay capability	:	Yes
Sensor-self-test capability	:	Yes
LCD display type	:	Minimum 2 Lines, 40 character on each line
BAS integration capability	:	Yes through Modbus
Stand-by battery with charger	:	Yes
Voltage requirement	:	230 V 50 HZ - Ac
No. of Zones	:	20
No. of Loops capacity	:	As required to handle the devices in the Bill of Quantities with 20% spare

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**MULTICRITERIA/MULTISENSOR DETECTOR**

Type	:	Analog Addressable
Twin LED indication	:	Yes
Blinking LED facility	:	Yes
Addressable capability	:	Yes
Intelligent capability	:	Yes
Remote / Local test capability	:	Yes
Sensor Coverage	:	Spot Detection
Programming of detector	:	By Decade or Rotary Switch
Operating Temperature Deg C	:	-10° C to 60° C
Operating RH at 40° C	:	10% - 93% RH
Operating Voltage	:	15 - 32 V DC
Power Consumption	:	< 300 Micro Amps
Sensors	:	Optical and thermal type
Sensitivity settings	:	minimum 2 Nos.
Photo thermal sensitivity settings	:	minimum 3 Nos.
Detection Mode	:	Combines or Thermal Only.

**LAZER SMOKE DETECTOR**

Type	:	Analog Addressable
Twin LED indication	:	Yes
Blinking LED facility	:	Yes
Addressable capability	:	Yes
Intelligent capability	:	Yes
Remote / Local test capability	:	Yes
Sensor Coverage	:	Spot Detection
Programming of detector	:	By Decade or Rotary Switch
Operating Temperature Deg C	:	-10° C to 60° C
Operating RH at 40° C	:	10% - 93% RH
Operating Voltage	:	15 - 32 V DC
Power Consumption	:	< 300 Micro Amps
Sensitivity settings	:	9 Levels (0.07 – 6.56%/m).

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**SMOKE DETECTOR**

Type	:	Analog Addressable
Twin LED indication	:	Yes
Blinking LED facility	:	Yes
Addressable capability	:	Yes
Intelligent capability	:	Yes
Remote / Local test capability	:	Yes
Sensor Coverage	:	Spot Detection
Programming of detector	:	By Decade or Rotary Switch
Operating Temperature Deg C	:	-10° C to 60° C
Operating RH at 40° C	:	10% - 93% RH
Operating Voltage	:	15 - 32 V DC
Power Consumption	:	< 300 Micro Amps

**FIXED/ ROR TYPE HEAT DETECTOR**

Type	:	Analog Addressable
Dual Thermistor	:	Yes
Twin LED indication	:	Yes
Blinking LED facility	:	Yes
Addressable capability	:	Yes
Intelligent capability	:	Yes
Remote / Local test capability	:	Yes
Sensor Coverage	:	Spot Detection
Programming of detector	:	By Decade or Rotary Switch
Operating Temperature Deg C	:	-10° C to 60° C
Operating RH at 40° C	:	10% - 93% RH
Operating Voltage	:	15 - 32 V DC
Power Consumption	:	< 300 Micro Amps

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**MANUAL CALL POINT**

Type	:	Analog Addressable, Resettable type
LED indication	:	Yes
Operating Voltage	:	15V - 32 V
Power consumption	:	< 250 Micro Amps
Dimensions	:	Semi-flush mounting: 89 x 93 x 27.5 (WxHxD)Surface mounting: 89 x 93 x 59.5 (WxHxD)
Weight	:	Semi Flush: 110g/Surface: 160g
IP Rating	:	IP24D
Operating Temperature	:	-30°C to +70°C
Relative Humidity	:	0% - 95% non-condensing
Operating Voltage	:	15V to 30Vdc max
Current Consumption	:	Quiescent (without isolator) 260µA Quiescent (with isolator) 360µA Alarm Current: 6mA (both

**ADDRESSABLE BEAM DETECTOR**

Range	:	10 -100 Meters
Fixed Sensitivity Levels	:	Minimum 4
Variable Sensitivity Levels	:	Minimum 2
Type of Light Spectrum	:	Infrared Type
LED Indicators	:	For standby, Alarm & Fault Condition
Power	:	LOOP Powered
Compliance	:	EN 54
Drift Compensation	:	Yes
Operating Voltage Range	:	15 to 32Vdc (24Vdc nominal)
Typical Standby Current	:	2mA @ 24Vdc (No communications, LED off)
Maximum Alarm Current	:	(LED on :) 8.5mA
Maximum Alignment Current	:	20mA
Operating Temperature Range	:	30°C to +55°C
Humidity	:	0 to 95% Relative Humidity
IP Rating	:	IP54
Reflector	:	200 x 230mm (10 – 70m Range, supplied as standard)

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**REPEATER ALARM PENAL**

Type	:	Active Type
Controls	:	System Reset, Accept, Mute, Silence & Self Test
LCD Display	:	80 Characters
Power Supply	:	External Type 24 VDC
Operating Current	:	90MA

**ADDRESSABLE MONITOR MODULE**

Mounting Option	:	DIN Rail or Surface Mount
Status Indication	:	Tri Colour LED
Address Setting	:	Through Selector Switch
Operating Temperature	:	-20 deg c- +60 deg c
Humidity	:	0 – 95 % Maximum Non Condensing
Operating Voltage	:	15-30 VDC
Current Consumption	:	Maximum 600 MicroA
Type	:	Single Channel

**ADDRESSABLE CONTROL/OUTPUT MODULE**

Mounting Option	:	DIN Rail or Surface Mount
Status Indication	:	Tri Colour LED
Address Setting	:	Through Selector Switch
Operating Temperature	:	-20 deg c- +60 deg c
Humidity	:	0 – 95 % Maximum Non Condensing
Operating Voltage	:	15-30 VDC
Current Consumption	:	Maximum 510 MicroA
Type	:	Single Channel
Relay Type	:	Form C

**FAULT ISOLATOR MODULE**

Mounting Option	:	DIN Rail or Surface Mount
Status Indication	:	Tri Colour LED
Address Setting	:	Through Selector Switch
Operating Temperature	:	-20 deg c- +60 deg c
Humidity	:	0 – 95 % Maximum Non Condensing
Operating Voltage	:	15-30 VDC
Current Consumption	:	200 MicroA
Fault detection Delay	:	100 to 400 ms

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**EXIT POINT DIRECTIONAL SOUNDER**

Voltage Input	:	Regulated 24 Volts
Operating Voltage Range	:	16 to 33 Volts
Operating Temperature	:	32°F to 120°F (0°C to 49°C)
Power	:	1/4", 1/2", 1, 2, and 4 watts
Speaker Size	:	4 inches (101mm)
Grille Size	:	47/8" (127mm)

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## ANNEXURE-IV

### LIST OF APPROVED MANUFACTURES FOR DIFFERENT MATERIALS

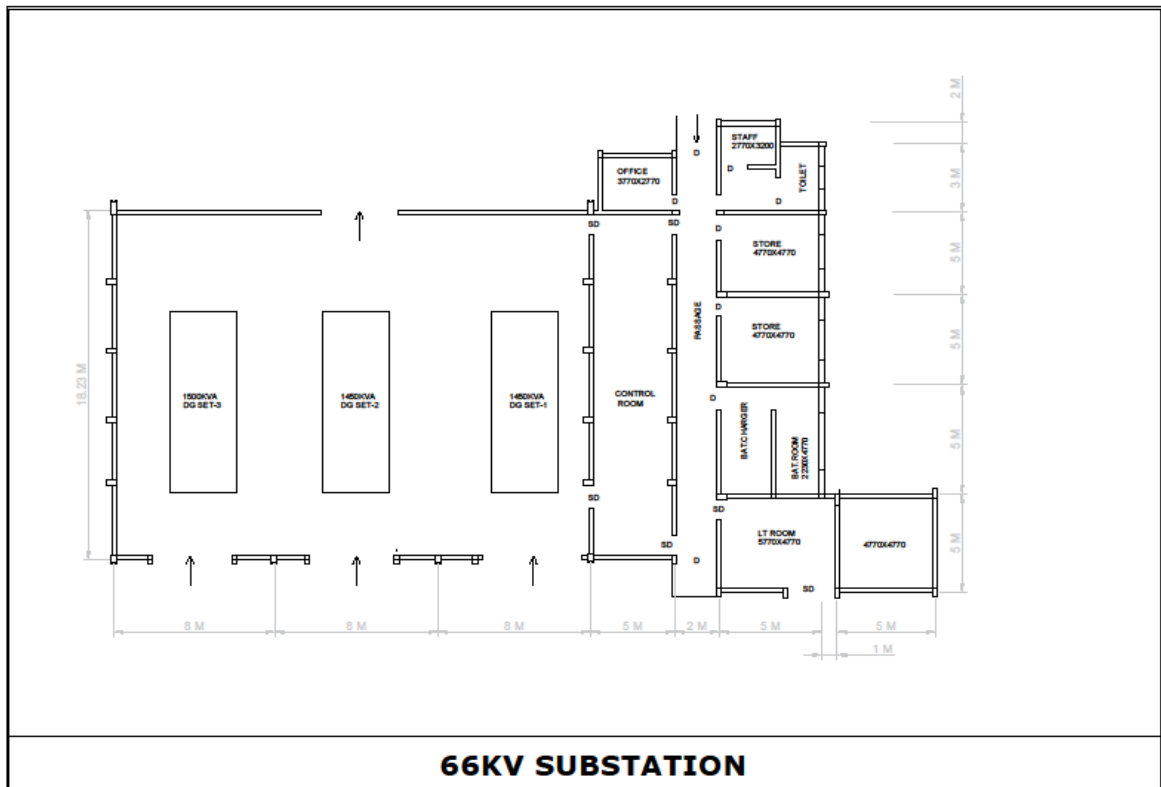
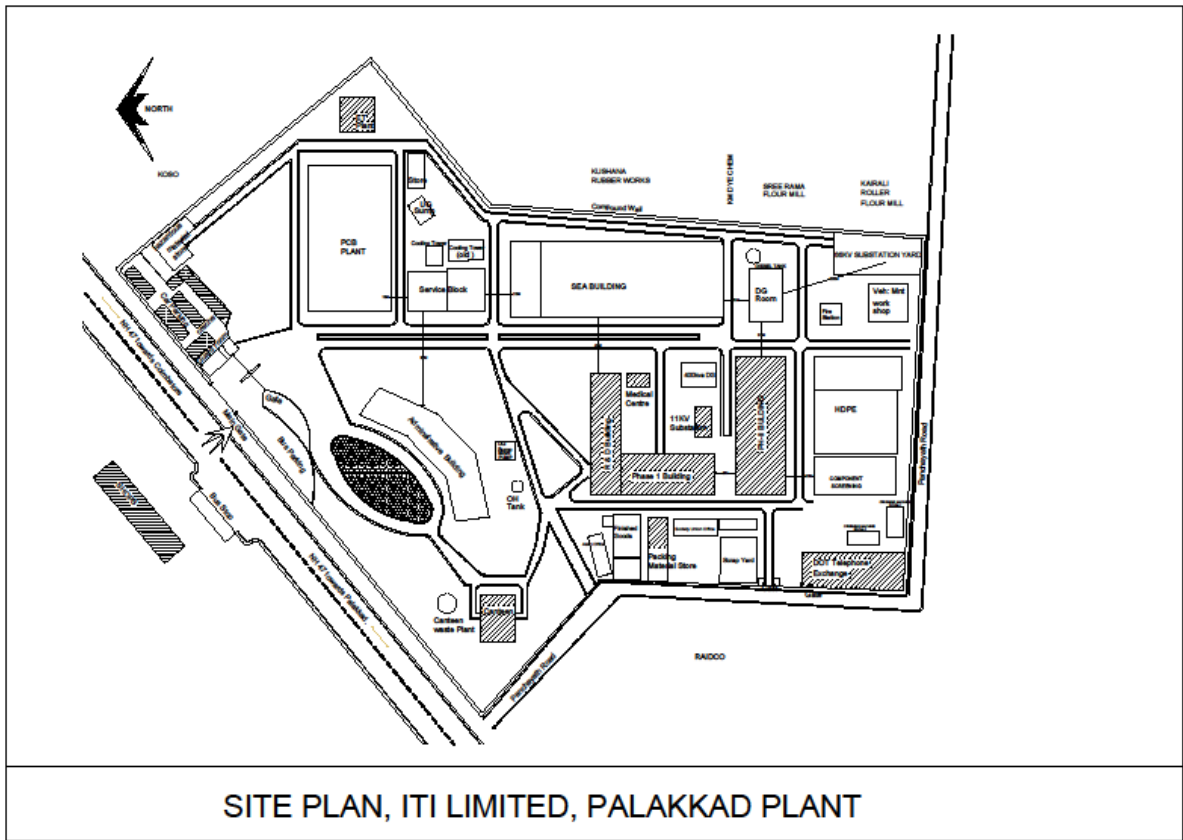
Sl.no	Detail of material	manufactures name
1	Fire Alarm Control Panel, Repeater : Panel, Modules, etc.	Apollo / Edwards /Honeywell/Bosch/Siemens
2	Smoke Detector/Heat Detector :	Apollo / Edwards /Honeywell/Bosch/Siemens
3.	Response Indicator, MCP, etc. :	Apollo / Edwards /Honeywell/Bosch/Siemens
4.	Cable & Wires :	CCI/ RPG Asian/ Universal/Fort Gloster/ Nicco/Torrent /Finolex/ Polycab/ Havells
5.	Steel Armoured Copper. Conductor : Cables 1100V grade :	CCI/Gloster/Incab/Nicco/Universal/Sark/ or approved equivalent with ISI mark
6.	MS conduits and accessories :	Gupta or approved equivalent
7.	PVC conduits :	A one, sarong plast, finolex or approved equivalent with ISI mark
8.	PVC insulated copper conductor Flexible Cables 650/1100-Vgrade :	Finolex/V-Guard/Q-Flex/Sark/Anchor
9	Switches, plugs, receptacles And wiring accessories :	Anchor
10	Glands :	Dowells, jainson or approved equivalent
11	Contactors :	L&T/Siemens/C&S/GE Power/Yule
12	Relays :	Alstom/GE Power/ or approved equivalent

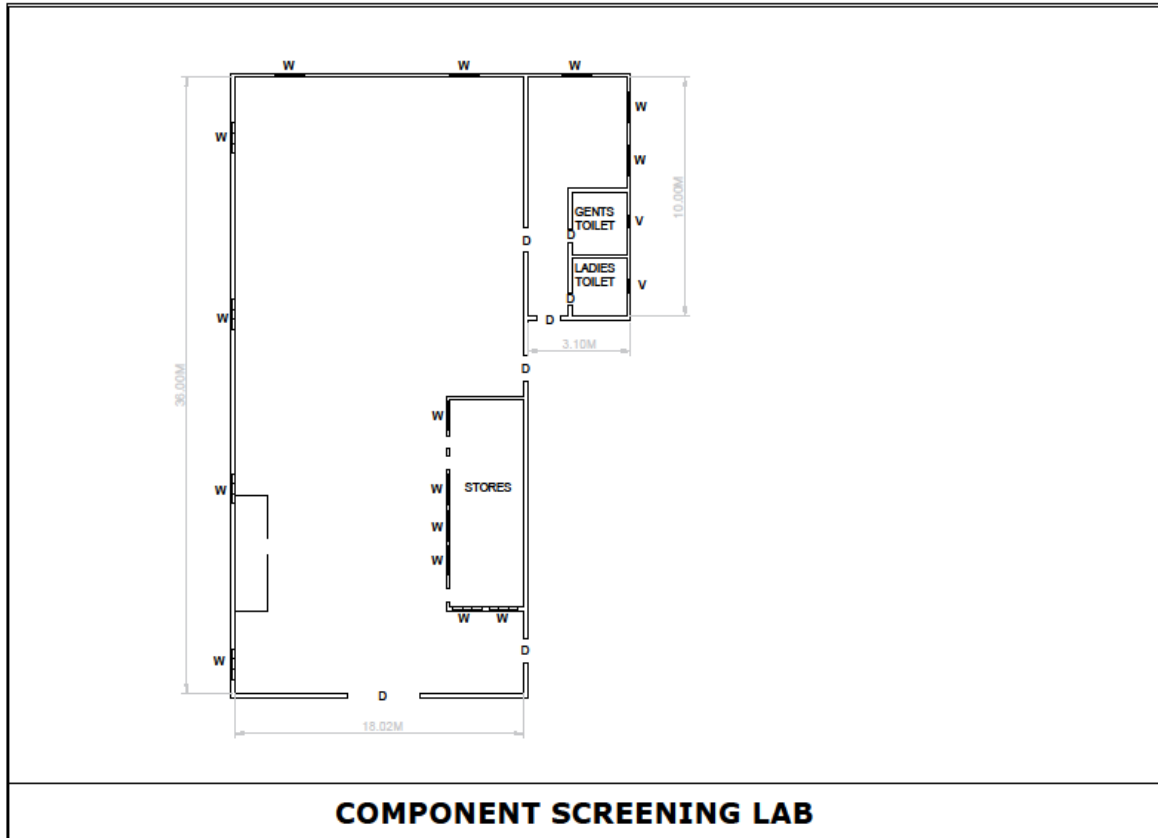
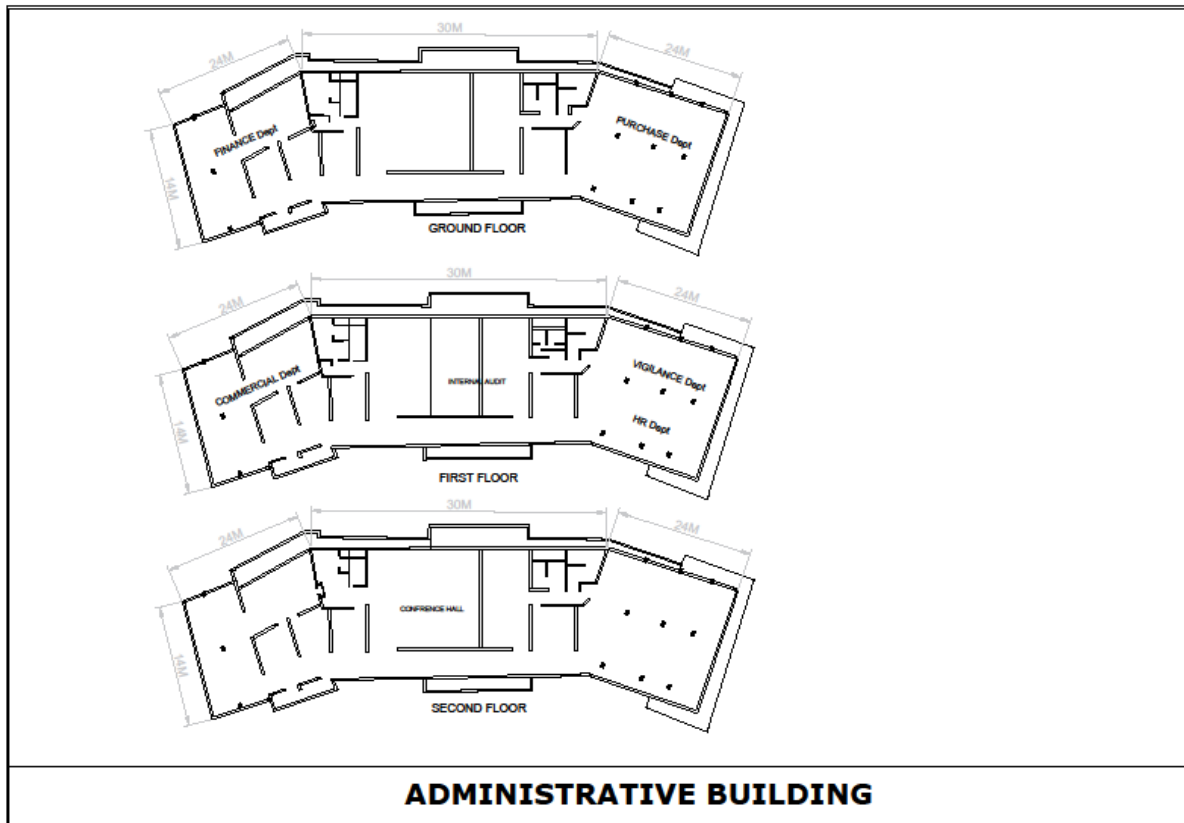
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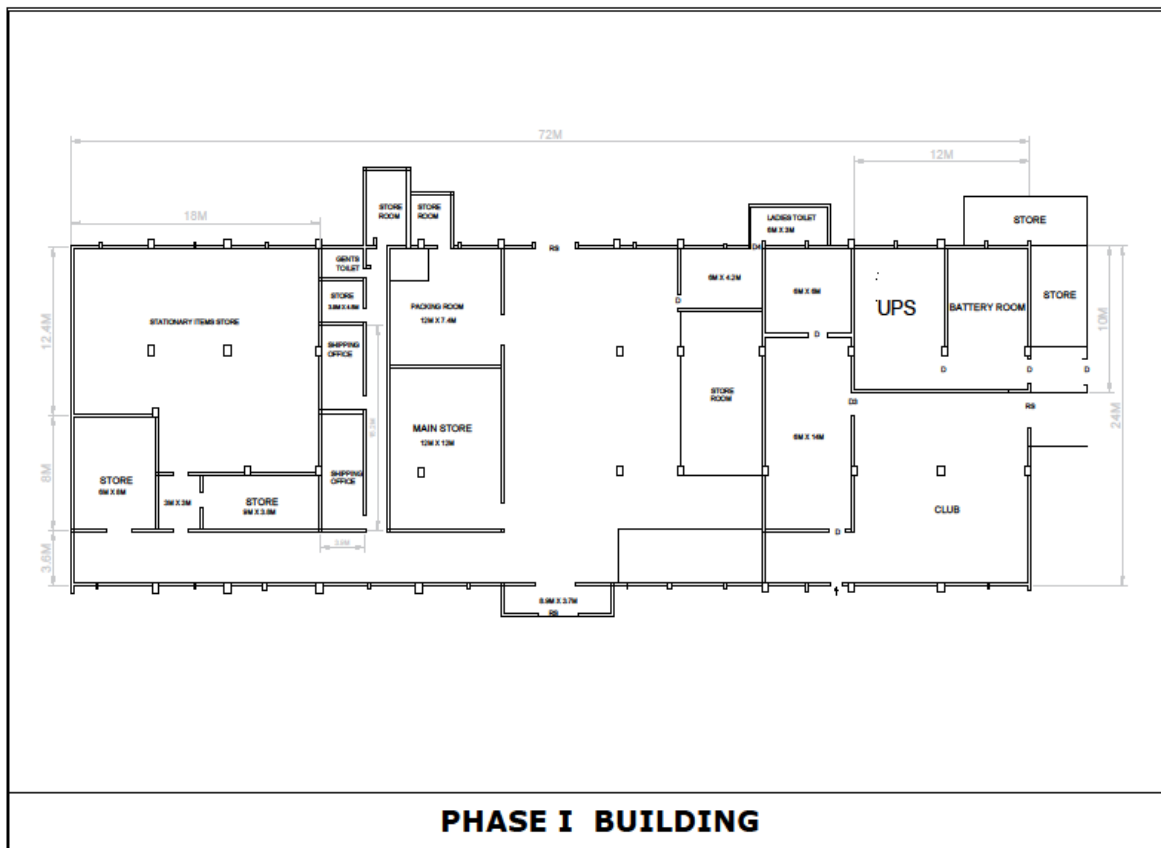
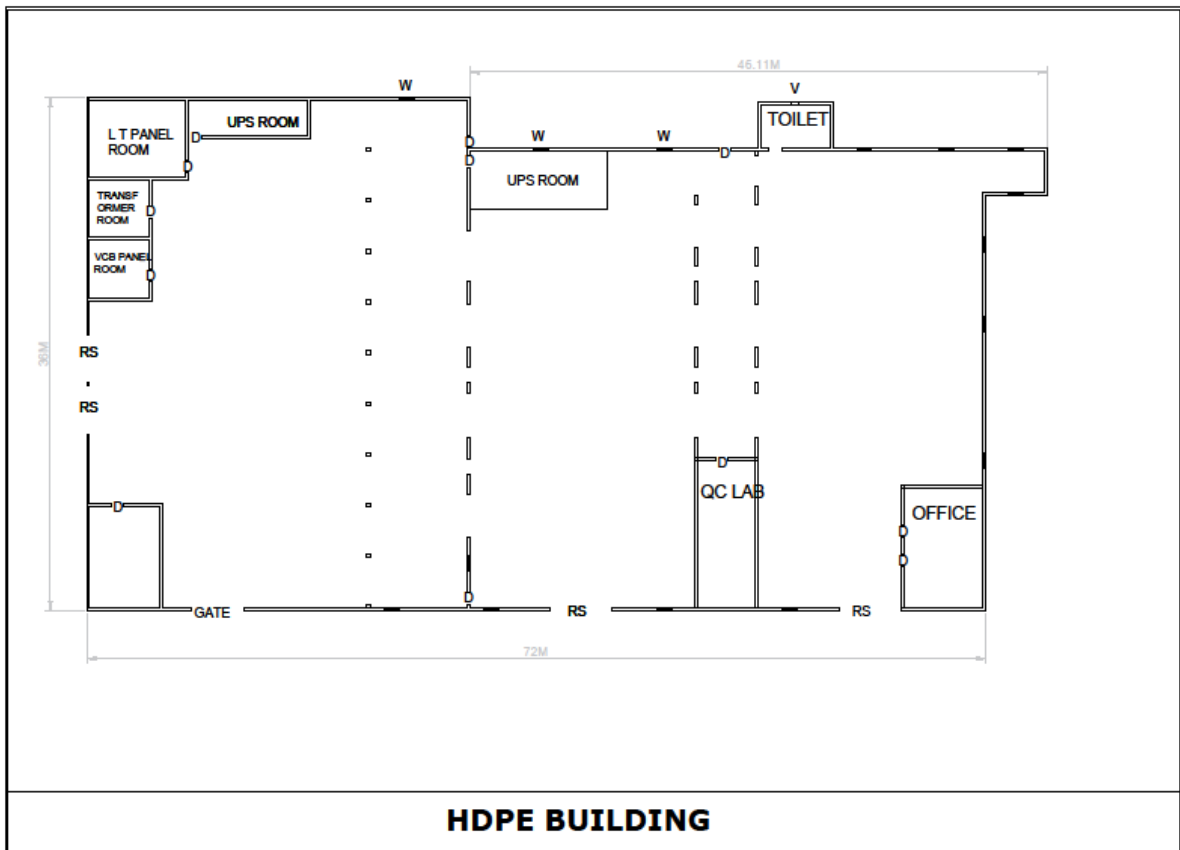


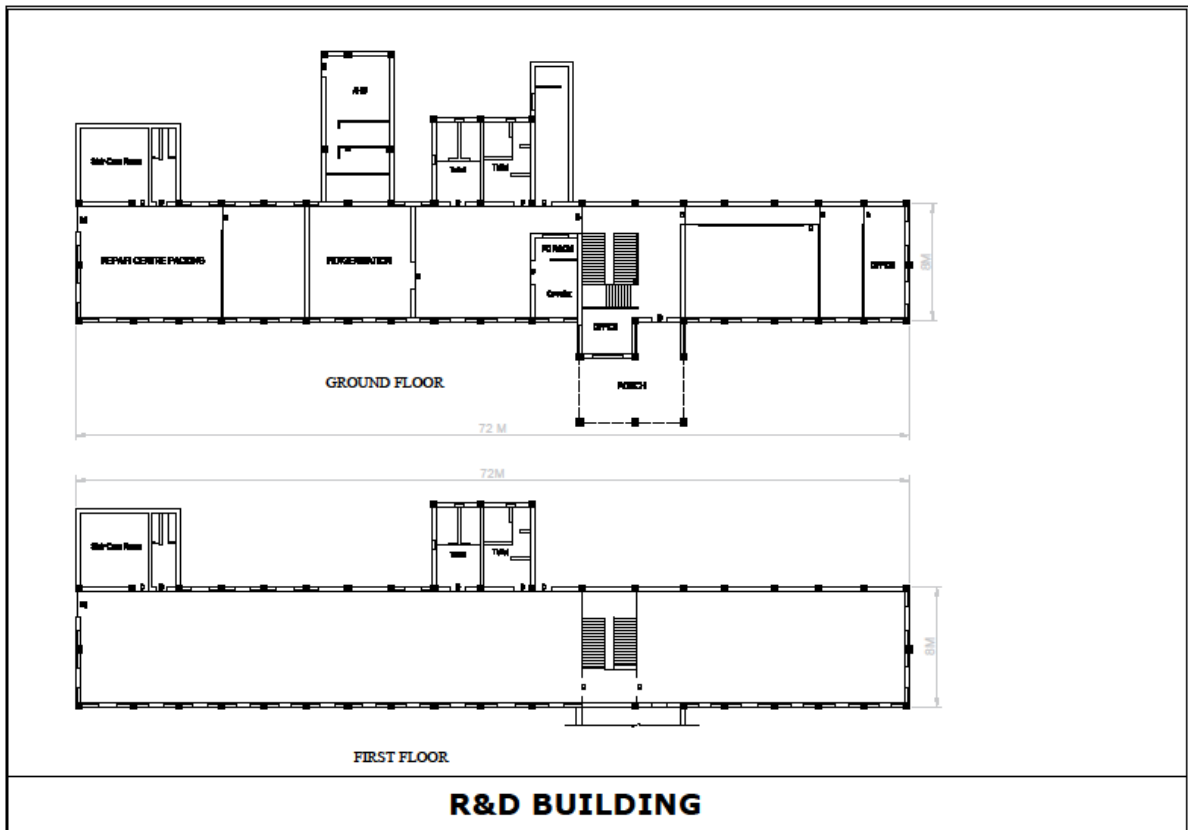
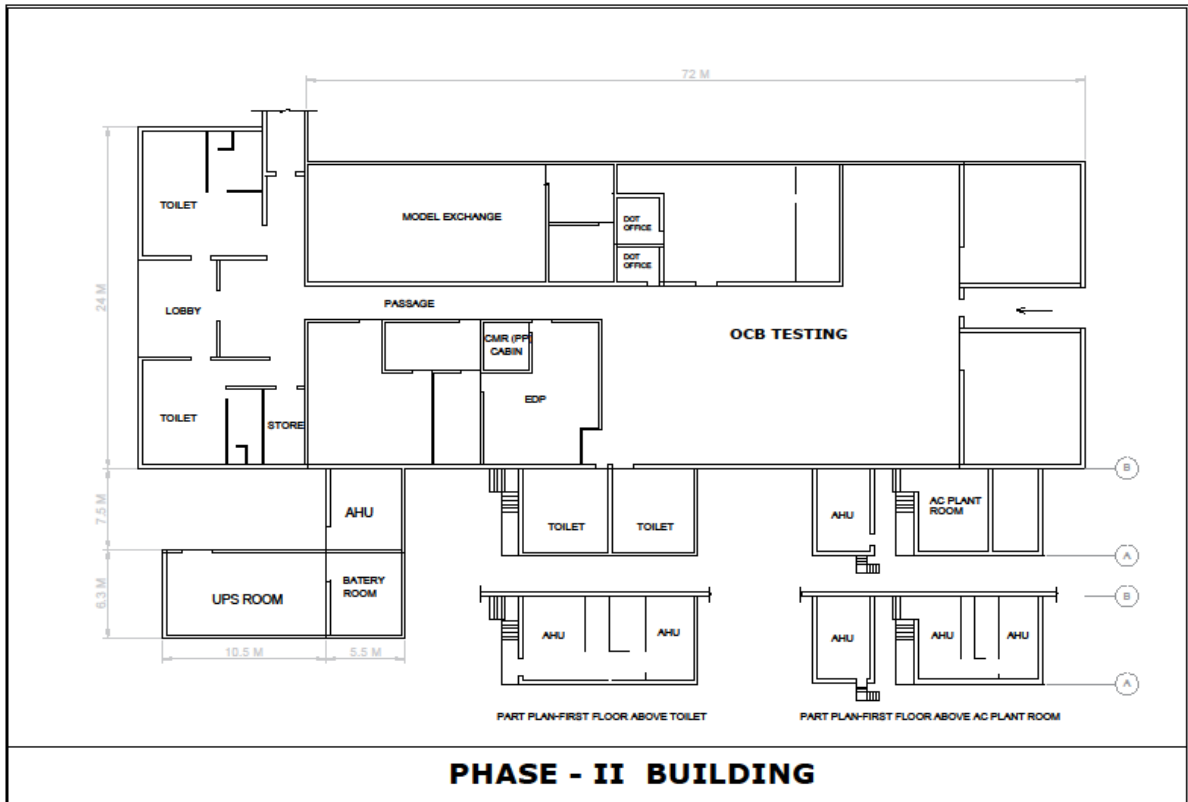
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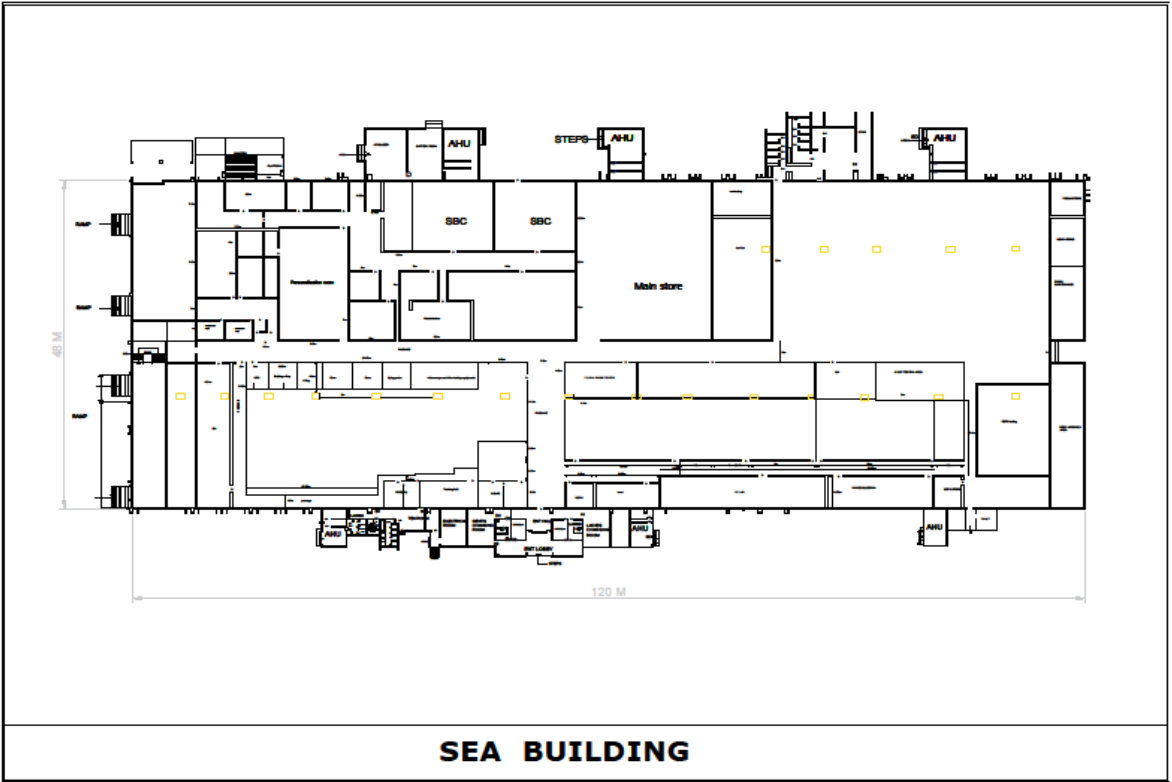
## TENDER DRAWINGS



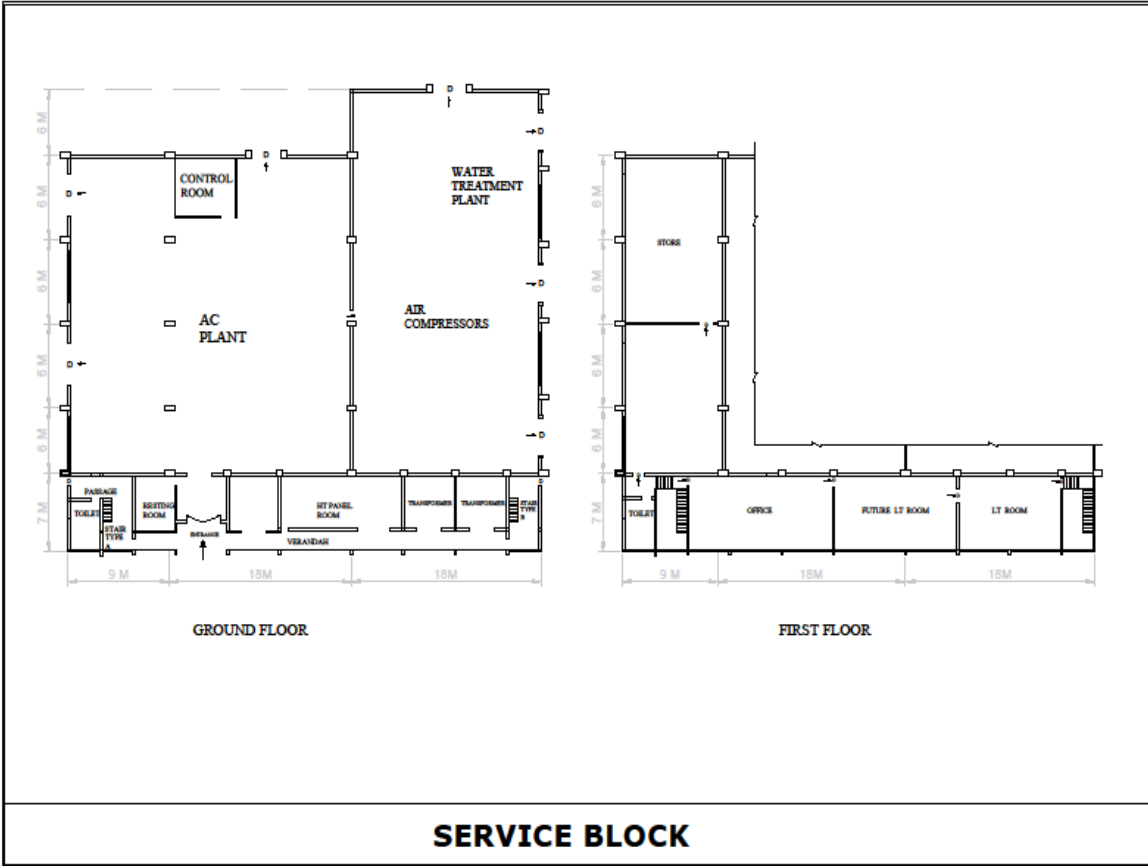








**SEA BUILDING**



**SERVICE BLOCK**

**ANNEXURE-VI**  
**PRE CONTRACT INTEGRITY PACT**

(To be executed on plain paper and submitted along with Technical Bid/Tender Documents having a value of Rs.....Or more to be signed by the bidder and same signatory Competent/Authorized to sign the relevant contract on behalf of the ITI Ltd).

Tender

No.....

THIS Integrity Pact is made on .....day of.....20..... .

BETWEEN:

ITI Limited ,.....having its Registered & Corporate Office at ITI Bhavan, Dooravaninagar, Bangalore - 560 016 and established under the Ministry of Communications & IT, Government of India (hereinafter called the Principal), which term shall unless excluded by or is repugnant to the context, be deemed to include its Chairman & Managing Director, Directors, Officers or any of them specified by the Chairman & Managing Director in this behalf and shall also include its successors and assigns)  
ON THE ONE PART

AND:

.....represented by ..... Chief Executive Officer (hereinafter called the Bidder(s)/Contractor(s)), which term shall unless excluded by or is repugnant to the context be deemed to include its heirs, representatives, successors and assigns of the bidder/contract ON THE SECOND PART.

**Preamble**

WHEREAS the Principal intends to award, under laid down organizational procedures, tender/contract ..... for (name of the Stores/equipments/items). The Principal, values full compliance with all relevant laws of the land, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal has appointed an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles as mentioned herein this agreement.

WHEREAS, to meet the purpose aforesaid, both the parties have agreed to enter into this Integrity Pact the terms and conditions of which shall also be read as integral part and parcel of the Tender Documents and contract between the parties.

**NOW THEREFORE, IN CONSIDERATION OF MUTUAL COVENANTS STIPULATED IN THIS PACT  
THE PARTIES HEREBY AGREE AS FOLLOWS AND THIS PACT WITNESSETH AS UNDER:**

**SECTION 1 - COMMITMENTS OF THE PRINCIPAL**

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- a. No employee of the Principal, personally or through family members, will in connection with the tender for or the execution of the contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - b. The Principal will, during the tender process treat all bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all bidder(s) the same information and will not provide to any bidder(s) confidential/ additional information through which the bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
  - c. The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employee, which is a criminal offence under IPC/PC Act or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary action as per its internal laid down Rules/ Regulations.

**SECTION 2 - COMMITMENTS OF THE BIDDER/ CONTRACTOR**

- 2.1 The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself observe the following principles during the participation in the tender process and during the execution of the contract.
- a. The bidder(s)/contractor(s) will not, directly or through any other person or firm offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
  - b. The bidder(s)/contractor(s) will not enter with other bidders/contractors into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
  - c. The bidder(s)/contractor(s) will not commit any offence under IPC/PC Act, further the bidder(s)/contractor(s) will not use improperly, for purposes of competition of personal gain, or pass onto others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
  - d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the agents/representatives in India, if any. Similarly, the Bidder(s)/Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.
  - e. The Bidder(s)/Contractor(s) will, when presenting the bid, disclose any and all payments made, are committed to or intend to make to agents, brokers or any other intermediaries in connection with the award of the contract.
  - f. The Bidder(s)/Contractor(s) will not bring any outside influence and Govt bodies directly or indirectly on the bidding process in furtherance to his bid.

- g. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or to be an accessory to such offences.

### **SECTION 3 - DISQUALIFICATION FROM TENDER PROCESS & EXCLUSION FROM FUTURE CONTRACTS**

- 3.1 If the Bidder(s)/Contractor(s), during tender process or before the award of the contract or during execution has committed a transgression in violation of Section 2, above or in any other form such as to put his reliability or credibility in question the Principal IS entitled to disqualify Bidder(s)/ Contractor(s) from the tender process.
- 3.2 If the Bidder(s)/Contractor(s), has committed a transgression through a violation of Section 2 of the above, such as to put his reliability or credibility into question, the Principal shall be entitled exclude including blacklisting for future tender/contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the Principal taking into consideration the full facts and circumstances of each case, particularly taking into account the number of transgression, the position of the transgressor within the company hierarchy of the Bidder(s)/Contractor(s) and the amount of the damage. The exclusion will be imposed for a period of minimum one year.
- 3.3 The Bidder(s)/Contractor(s) with its free consent and without any influence agrees and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground including the lack of any hearing before the decision to resort to such exclusion is taken. The undertaking is given freely and after obtaining independent legal advice.
- 3.4 A transgression is considered to have occurred if the Principal after due consideration of the available evidence concludes that on the basis of facts available there are no material doubts.
- 3.5 The decision of the Principal to the effect that breach of the provisions of this Integrity Pact has been committed by the Bidder(s)/ Contractor(s) shall be final and binding on the Bidder(s)/ Contractor(s), however the Bidder(s)/ Contractor(s) can approach IEM(s) appointed for the purpose of this Pact.
- 3.6 On occurrence of any sanctions/ disqualifications etc arising out from violation of integrity pact Bidder(s)/ Contractor(s) shall not entitled for any compensation on this account.
- 3.7 Subject to full satisfaction of the Principal, the exclusion of the Bidder(s)/ Contractor(s) could be revoked by the Principal if the Bidder(s)/ Contractor(s) can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption preventative system in his organization.

### **SECTION 4 - PREVIOUS TRANSGRESSION**

- 4.1 The Bidder(s)/ Contractor(s) declares that no previous transgression occurred in the last 3 years immediately before signing of this Integrity Pact with any other company in any country conforming to the anti-corruption/ transparency International (TI) approach or with any other Public Sector Enterprises/Undertaking in India of any Government Department in India that could justify his exclusion from the tender process.
- 4.2 If the Bidder(s)/ Contractor(s) makes incorrect statement on this subject, he can be disqualified from the tender process or action for his exclusion can be taken as mentioned under Section-3 of the above for transgressions of Section-2 of the above and shall be liable for compensation for damages as per Section- 5 of this Pact.



## **SECTION 5 - COMPENSATION FOR DAMAGE**

- 5.1 If the Principal has disqualified the Bidder(s)/Contractor(s) from the tender process prior to the award according to Section 3 the Principal is entitled to forfeit the Earnest Money Deposit/Bid Security/or demand and recover the damages equivalent to Earnest Money Deposit/Bid Security apart from any other legal that may have accrued to the Principal.
- 5.2 In addition to 5.1 above the Principal shall be entitled to take recourse to the relevant provision of the contract related to termination of Contract due to Contractor default. In such case, the Principal shall be entitled to forfeit the Performance Bank Guarantee of the Contractor or demand and recover liquidate and all damages as per the provisions of the contract agreement against termination.

## **SECTION 6 - EQUAL TREATMENT OF ALL BIDDERS/CONTRACTORS**

- 6.1 The Principal will enter into Integrity Pact on all identical terms with all bidders and contractors for identical cases.
- 6.2 The Bidder(s)/Contractor(s) undertakes to get this Pact signed by its sub- contractor(s)/sub-vendor(s)/associate(s), if any, and to submit the same to the Principal along with the tender document/contract before signing the contract. The Bidder(s)/Contractor(s) shall be responsible for any violation(s) of the provisions laid down in the Integrity Pact Agreement by any of its sub-contractors / sub-vendors / associates.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this Integrity Pact or violate its provisions.

## **SECTION 7 - CRIMINAL CHARGES AGAINST VIOLATING BIDDER(S)/ CONTRACTOR(S)**

- 7.1 If the Principal receives any information of conduct of a Bidder(s)/Contractor(s) or sub-contractor/sub-vendor/associates of the Bidder(s)/Contractor(s) which constitutes corruption or if the Principal has substantivesuspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer of the Principal for appropriate action.

## **SECTION 8 - INDEPENDENT EXTERNAL MONITOR(S)**

- 8.1 The Principal appoints competent and credible Independent External Monitor(s) for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.

Details of IEM appointed by ITI are as under:

Shri Javeed Ahmad, IPS(Retd.) M-1101, Shalimar Gallant Apartment, Vigyanpuri , Mahanagar, Lucknow- 226006

- 8.2 The Monitor is not subject to any instructions by the representatives of the parties and performs his functions neutrally and independently. He will report to the Chairman and Managing Director of the Principal.
- 8.3 The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all product documentation of the Principal including that provided by the Bidder(s)/Contractor(s). The Bidder(s)/Contractor(s) will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The Monitor is under contractual obligation to treat the information and documents Bidder(s)/Contractor(s) with confidentiality.

- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the project provided such meeting could have an impact on the contractual relations between the Principal and the Bidder(s)/Contractor(s). As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in specific manner, refrain from action or tolerate action.
- 8.5 The Monitor will submit a written report to the Chairman & Managing Director of the Principal within..... to .....weeks from the date of reference or intimation to him by the principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.6 If the Monitor has reported to the Chairman & Managing Director of the Principal a substantiated suspicion of an offence under relevant IPC/PC Act, and the Chairman & Managing Director of the Principal has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
- 8.7 The word 'Monitor' would include both singular and plural.

## **SECTION 9 - FACILITATION OF INVESTIGATION**

- 9.1 In case of any allegation of violation of any provisions of this Pact or payment of commission, the Principal or its agencies shall be entitled to examine all the documents including the Books of Accounts of the Bidder(s)/Contractor(s) and the Bidder(s)/Contractor(s) shall provide necessary information and documents in English and shall extend all help to the Principal for the purpose of verification of the documents.

## **SECTION 10 - LAW AND JURISDICTION**

- 10.1 The Pact is subject to the Law as applicable in Indian Territory. The place of performance and jurisdiction shall the seat of the Principal.
- 10.2 The actions stipulated in this Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

## **SECTION 11- PACT DURATION**

- 11.1 This Pact begins when both the parties have legally signed it. It expires after 12 months on completion of the warranty/guarantee period of the project / work awarded, to the fullest satisfaction of the Principal.
- 11.2 If the Bidder(s)/Contractor(s) is unsuccessful, the Pact will automatically become invalid after three months on evidence of failure on the part of the Bidder(s)/ Contractor( s).
- 11.3 If any claim is lodged/made during the validity of the Pact, the same shall be binding and continue to be valid despite the lapse of the Pact unless it is discharged/ determined by the Chairman and Managing Director of the Principal.

## **SECTION 12 - OTHER PROVISIONS**

- 12.1 This pact is subject to Indian Law, place of performance and jurisdiction is the Registered & Corporate Office of the Principal at Bengaluru.
- 12.2 Changes and supplements as well as termination notices need to be made in writing by both the parties. Side agreements have not been made.

12.3 If the Bidder(s)/Contractor(s) or a partnership, the pact must be signed by all consortium members and partners.

12.4 Should one or several provisions of this pact turn out to be invalid, the remainder of this pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

12.5 Any disputes/ difference arising between the parties with regard to term of this Pact, any action taken by the Principal in accordance with this Pact or interpretation thereof shall not be subject to any Arbitration.

12.6 The action stipulates in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

In witness whereof the parties have signed and executed this Pact at the place and date first done mentioned in the presence of the witnesses:

For PRINCIPAL

For BIDDER(S)/ CONTRACTOR(S)

.....

.....

(Name & Designation)

(Name & Designation)

Witness

Witness

1) .....

.

1) .....

2).....

2) .....

## Annexure VII – PRICE BID

### Schedule of Quantity

**Sub: Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system**

Sl. No.	Description of Item	Unit	Qty	Supply		Installation	
				Rate	Amount	Rate	Amount
1	Design, assembly, supply, installation, Testing and commissioning of the following Microprocessor based intelligent addressable, modular, expandable networkable, <b>Fire Alarm Control Panel</b>						
a)	Panel with 1 loop	Set	6				
b)	Panel with 2 loops	Set	5				
c)	Panel with 3 loop	Set	2				
2	Supply, Installation, Testing and Commissioning of Intelligent addressable <b>Multi sensor 3D (photo + Heat) detector</b> with replaceable optical chamber, Mounted based LED and soft addressable detectors complete as required. UL and FM approved.	Nos	1000				
3	Supply, Installation, Testing and Commissioning of Intelligent addressable <b>Multi sensor 3D (photo + Heat) detector with AHU Duct Fitting arrangements</b> with replaceable optical chamber, Mounted based LED and soft addressable detectors complete as required. UL and FM approved.	Nos	26				
4	Supply, Installation, Testing and Commissioning of Analog Addressable rate of rise <b>Heat Detector</b> of photo electric type with LED indicator, mounting base and accessories etc., complete.	Nos	5				

Contd....2-

Signature of Contractor

Sl. No.	Description of Item	Unit	Qty	Supply		Installation	
				Rate	Amount	Rate	Amount
5	Supply, Installation, Testing and Commissioning of Analog Addressable Beam detector with LED indicator, mounting base and accessories etc., complete	Nos	2				
6	Supply and installation of <b>short circuit isolator</b> , analog addressable type for isolating analog devices from short circuit fault isolating module shall have LED that latches to indicate a short on the loop. This device shall automatically determining an return to normal condition of the loop restore the isolated segments	Nos	55				
7	Supply of Analog Addressable <b>Electronic Sounder</b> with volume control unit giving output of 65db minimum or 5 db above any noise tends to exist. The hooter shall be of wall mounted type. The rate shall include for mounting accessories, etc., complete. For all the Floors.	Nos	100				
8	Supply, installation , testing and commissioning of Addressable control relay modules for AHU switching OFF during fire, complete	Nos	26				
9	80 Character Liquid Crystal Display <b>Repeater Panel</b> which mimics all display information from the host panel and control switches for System Acknowledge, Signal Silence, Drill and Reset with enable key. The Repeater Panel shall have system LEDs for Power, Alarm, Trouble, Supervisory and Alarm Silenced. It should display device type identifiers, individual point alarm, trouble or supervisory, zone and custom alpha labels. It should have time and date display field. The panel shall have provision to be powered by 24VDC from the host FACP or from remote 24VDC power source. It should be capable of being remotely located up to 2000mtr from the FACP/host control panel.	Nos	1				

Contd.....-3-

Signature of Contractor

Sl. No.	Description of Item	Unit	Qty	Supply		Installation	
				Rate	Amount	Rate	Amount
10	Supply, Installation, testing and commissioning of Addressable <b>Monitor Modules</b> for Interfacing PFC/Dry Inputs of Sprinkler Line Flow Switch Status in Faire Alarm Panel integration with all the mounting accessories complete as required.	Nos	13				
11	Supply and installation of visual type response indicators with LED indicating lamp, housed in suitable MS enclosure with acrylic cover fixed in flush with wall to operate in conjunction with smoke/Heat detectors operating on 24 VDC installed above the false ceiling or below the false floor, complete with all accessories and fixing materials as required and as directed by Engineer-in-charge.	Nos	300				
12	Supply of Analog Addressable <b>Manual Call Station</b> with necessary break glass hammer with chain and push button. The manual call station shall be of wall mounted with necessary mounting and fixing arrangement and etc., complete.	Nos	100				
13	Supply of 1100V grade FIRE RESISTANCE LOW SMOKE multi core, round type, insulated, sheathed, flexible copper conductor 2 core x 1.5 Sq.mm Copper Un Armoured Cable including providing necessary end terminations with copper lugs, junction box, crimping identification tags at each	Mtr	20000				
14	Supply all materials required for the standard and proper termination including termination of the 2Cx1.5sqmm copper cable as required.	Nos	2900				

Contd.....-4-

Signature of Contractor

Sl. No	Description of Item	Unit	Qty	Supply		Installation	
				Rate	Amount	Rate	Amount
15	Supply, Laying of following 3" size GI pipe for cable laying across the road including road cutting, laying of pipe after inserting cable, refilling and reconditioning the road, etc. as required.	Mtr	100				
16	Supply of 2" size PVC pipe for laying cable in the ground including excavation, laying of pipe after inserting the cable, refilling as required	Mtr	500				
17	Supply and laying of 20mm size PVC conduit including providing tees, bends, elbows, junction boxes spacers, saddles, screws etc, and fixing on to the wall/ceiling/tray etc, as per standard.	Mtr	600				
18	Supply, laying, testing, of Single mode armoured 6 core fiber cable. LSZH, RoHs Compliant for outdoor use. Make:D Link , RR, Molex, Belden, R&M	Mtr	2000				
19	Supply and providing Cat 6 cable laying in PVC conduit including end termination and providing required accessories. Make: D Link , RR, Molex, Belden, R&M	Mtr	305				
20	Supply, Installation, Testing and Commissioning of CAT-6, 24-port patch panel. (4 Nos Load) Make: D Link , RR, Molex, Belden, R&M	Nos	13				
21	Supply and fixing of 19" 12 U rack with covered wire manager, cooling fan, AC distribution box (PDU) and all other accessories. Preferred Make. Mns, Rittal/Netrack (600mmX450mmX450mm) size	Nos	13				

Contd...-5-

Signature of Contractor

Sl. No.	Description of Item	Unit	Qty	Supply		Installation	
				Rate	Amount	Rate	Amount
22	<p><b>Master Control Panel</b> with Graphic software with following configuration.</p> <p>10th Generation Intel® Core™ i5/ or Above ( i7)10500 (6-Core, 12MB Cache, 3.1GHz to 4.5GHz, 65W) With Com Port Windows 10 Pro (64bit) English 2 GB videocard Intel® Integrated Graphics memory 8GB, 1x8GB, DDR4 non-ECC Memory, harddrive</p> <p>3.5 inch 1TB 7200rpm SATA Hard Disk Drive</p> <p>This fire alarm graphic software is programmed to integrate with Airlight smart pad to provide high-tended real time information in the form of text, floor map and AV file.This graphic representation makes it simple for the user to locate the affected area and warn the occupants to respond efficiently at the time of emergency. Fire alarm graphic software displays information on PC workstation and facilitates password protection feature that allows only authorized personnel to login/logout/change password.</p> <p>Features:</p> <p>Information specific graphic alarm display</p> <p>Enhanced auto-watch allows the viewer to automatically scan individual buildings</p> <p>Custom alarm and system status messaging instantly inform building administrators of events and alarms</p> <p>Custom color graphical icons depict up to 500,000 addressable devices</p> <p>Extensive event logging up to 500,000 events with status notations for report customization</p> <p>Event log</p> <p>Easy to update with drag and drop function</p> <p>Customized emergency instructions</p>	Set	1				

Contd.....-6-

Signature of Contractor



Sl. No.	Description of Item	Unit	Qty	Supply		Installation	
				Rate	Amount		
23	SF Module Make : Netger, molex	Nos	13				
24	LIU With Splicing, & Patch Codes including all accessories : Make: D Link, Molex	Nos	13				
<b>TOTAL</b>							
<b>GST AMOUNT</b>							
<b>GRAND TOTAL INCLUDING GST</b>							

(Rupees .....  
..... only)

**Signature of the Contractor**

**Deputy General Manager(CS)**

(Seal)

APPENDIX-I

**PERFORMA (EMD) BANK GUARANTEE TOWARDS EARNEST MONEY DEPOSIT**

Bank Guarantee No.

Date:

To,

**DGM (CENTRAL SERVICES)  
ITI Limited, PALAKKAD PLANT,  
KANJIKODE WEST (P.O.), PALAKKAD,  
KERALA 678623**

Dear Sir

In accordance with Invitation for Bids under your Bid Document No..... (Bid Document no.), M/s. .... (**Bidder's Name**) having its registered office at .....(here in after called the bidder) wish to participate in the said Bid for — Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm system at ITI Limited, PALAKKAD PLANT, KANJIKODE WSET (P.O.), PALAKKAD, KERALA 678623.

As an irrevocable bank guarantee against Bid Security for an amount of.....( Amount of EMD in Rs.) valid upto.....required to be submitted by the Bidder as a condition precedent for participation in the said Bid which amount is liable to be forfeited on the happening of any contingencies mentioned in the Bidding Documents.

We, the .....(**Bank Name & address**) guarantee and undertake to pay immediately on demand by M/s ITI Ltd, the amount of .....(Amount of EMD in Rs.) without any reservation, protest, demand and recourse. Any such demand made by the ITI shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

This Guarantee shall be irrevocable and shall remain valid upto.....(date of expiry of Guarantee). If any further extension of this guarantee is required, the same

shall be extended to such required period (not exceeding one year) on receiving instructions from  
M/s.

.....(Bidder's Name) on whose behalf this guarantee is  
issued.

This guarantee will remain in force upto and including.....(date of expiry  
of Guarantee), and any demand in respect thereof must reach the Bank not later than the above  
date.

Notwithstanding anything contained herein above:

- i) Our liability under this guarantee shall not exceed.....(Amount of EMD in  
Rs.)
- ii) This bank guarantee shall be valid up to.....(date of expiry of  
Guarantee).
- iii) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee  
only and only if we receive from you a written claim or demand on or  
before.....(date of expiry of Guarantee).

The said letter of guarantee has been transmitted through SFMS gateway to your bank. It is  
advised that in your own interest, you may verify the genuineness of above letter of guarantee  
from your bank/branch.

Dated the.....date of ..... 2021.

Bank Name  
(Sealed & signed)

## APPENDIX-II

### **Bidder's Banker details of Payment**

1. Name & Address :
2. Contact No. :
3. Name of the bankers :
4. MICR Code No.:
5. Bank Account No.:
6. RTGS/IFSC Code No. :
7. PAN No. :
8. Service Tax No. :
9. TIN No/VAT No. :
10. G.S.T. No. :

APPENDIX-III

DECLARATION  
(Power of Attorney)

(To be submitted on Rs.100/- stamp paper)

I/We,.....

M/s.....having Permanent  
address.....is interested in  
participating tender for Design, Supply, Installation, Testing and Commissioning of Fire  
Detection and Alarm system at ITI Limited, KANJIKODE WEST (P.O.), PALAKKAD,  
KERALA 678623.

I/We authorized following person to participate in the tender floated by ITI Limited.

I/We here by authorize following person from our company to quote in the tender for this  
project.

- 1.
- 2.

I/We will be fully responsible for all aspects of tender for the total work executed by our  
company in the above project during the tenure of the project inclusive of 5years  
Operation & Maintenance period. And also in case if our company does not complete  
the work in stipulated time, then we shall be responsible.

(Signature of Tenderer

Company Head) -

Name: \_\_\_\_\_

Date :

Designation: \_\_\_\_\_

Place :

Seal:

APPENDIX-IV  
SITE VISIT REPORT LETTER

Date:.....

To,  
**DGM (CENTRAL SERVICES)**  
**ITI Limited, PALAKKAD PLANT,**  
**PALAKKAD MAIN RD, KANJIKODE,**  
**KERALA 678623**

Sub. : Site Visit Report for Design, Supply, Installation, Testing and Commissioning  
of Fire Detection and Alarm System in ITI Limited, PALAKKAD.

Ref.: ITI's Tender No-----

This has reference to above referred tender of Design, Supply, Installation, Testing and Commissioning of Fire Detection and Alarm System in ITI Limited, PALAKKAD PLANT, KANJIKODE WSET (P.O.), PALAKKAD, KERALA 678623 to be electrified through Solar Power.

I/We hereby declare that we have visited site.

I/We made ourselves acquainted with site conditions, approach to site, requirement of land, soil conditions, availability of water, requirement of tender conditions, etc. I/We verified all details required to execute the projects. I/We have no problems in undertaking the projects and complete them in the given time period.

Thanking you,

Yours faithfully

(Signature of Bidder)

Name of Bidder

(Signature ITI authorities)

Designation