

**IGRUA RENOVATION**  
RENOVATION OF TYPE D-I RESIDENTIAL QUARTER.

**NAME OF WORK:**

**PROPOSED "RENOVATION OF TYPE D-I  
RESIDENTIAL QUARTER" AT INDIRA GANDHI  
RASHTRIYA URAN AKADEMI, FURSATGANJ,  
DISTRICT – RAE BARELI.**

**LAST DATE OF SUBMISSION:**

**17th December, 2009.**

**UPTO 1430 Hrs.**

**DATE OF OPENING OF TECHNICAL BID:**

**17th December, 2009.**

**AT 1530 Hrs.**

**DATE OF OPENING OF FINANCIAL BID:**

**SHALL BE INTIMATED TO THE TENDERERS  
WHOSE TECHNICAL BID HAS BEEN APPROVED  
AFTER OPENING OF TECHNICAL BID.**

**VENUE: INDIRA GANDHI RASHTRIYA URAN  
AKADEMI.**

**SECTION –I**

**CONDITIONS OF TENDER.**

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**PREFACE**

INDIRA GANDHI RESHTRIYA URAN AKADEMI WISHES TO RENOVATE TYPE D-I RESIDENTIAL QUARTER AT INDIRA GANDHI RASHTRIYA AKADEMI, FURSATGANJ RAE BARELI.

TOTAL ALLOTTED TIME TO CARRY OUT AND FINISH THIS WORK IS 30 DAYS EXCLUDING MOBILISATION PERIOD OF 7 (SEVEN) DAYS.

CONTRACTORS OF REPUTE ARE INVITED TO QUOTE FOR THIS PROJECT KEEPING IN MIND, QUALITY, SPEED AND TIMELY COMPLETION OF THE WORK AS THE MOST IMPORTANT ASPECTS AND ARE REQUESTED TO OFFER THEIR MOST COMPETITIVE QUOTATIONS.

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**NOTICE INVITING TENDERS**

**1. INVITATION:**

SEALED ITEM RATE TENDERS ARE INVITED BY INDIRA GANDHI RASHTRIYA URAN AKADEMI FOR RENOVATION OF TYPE D-I RESIDENTIAL QUARTER AT THEIR FACILITY AT FURSATGANJ, RAE BARELI.

**2. SCOPE OF WORK:**

RENOAVTION OF TYPE D-I RESIDENTIAL QUARTER AT INDIRA GANDHI RASHTRIYA URAN AKADEMI, FURSATGANJ, RAE BARELI.

**3. ISSUE OF TENDER FORMS:**

TENDER FORMS, CONDITION OF CONTRACT, SPECIFICATIONS, BILL OF QUANTITIES ETC CAN EITHER BE DOWNLOADED FROM OUR WEBSITE OR OBTAINED ON CASH PAYMENT OF RS. 1,000/- PER SET (NON-REFUNDABLE) FROM OUR ACCOUNTS DEPARTMENT AT:

**IGRUA CAMPUS,  
FURSATGANJ,  
RAE BARELI.**

**TENDER DOCUMENTS WITH OUT PAYMENT OF ABOVE MENTIONED TENDER FEES SHALL NOT BE CONSIDERED AND SHALL BE REJECTED STRAIGHTAWAY.**

**4. SUBMISSION OF TENDER FORMS :**

SEALED TENDERS WILL BE RECIVED IN THE OFFICE OF MANAGER STORE & PURCHASE AT INDIRA GANDHI RASHTRIYA URAN AKADEMI, FURSATGANJ, RAE BARELI; TILL 17th December, 2009 UPTO 1430 HRS.

TENDER SEND BY POST /COURIER SERVICES MUST REACH BY THE ABOVE TIME AND DATE. NO CONSIDERATION WILL BE GIVEN TO THE TENDERS RECEIVED AFTER THE STIPULATED TIME.

**5. OPENING OF TENDER FORMS:**

SEALED TENDER SHALL BE OPENED IN THE OFFICE OF MANAGER STORES AND PURCHASE AT INDIRA GANDHI RASHTRIYA URAN AKADEMI, FURSATGANJ, RAE BARELI.

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- i. TECHNICAL BID SHALL BE OPENED AT 1530 HRS ON 17th December, 2009, IN THE PRESENCE OF THE TENDERERS WHO MAY WISH TO BE PRESENT. ONLY A SINGLE AUTHORIZED REPRESENTATIVE OF THE TENDERER MAY BE PRESENT FOR THE PURPOSE ALONG WITH AN AUTHORITY LETTER FROM THE TENDERER FOR THE SAME.
- ii. DATE OF OPENING OF FINANCIAL BID SHALL BE INTIMATED TO THE TENDERERS WHOSE TECHNICAL BID HAS BEEN APPROVED. THE FINANCIAL BID SHALL BE OPEN IN THE PRESENCE OF THE TENDERERS WHO MAY WISH TO BE PRESENT. ONLY A SINGLE AUTHORIZED REPRESENTATIVE OF THE TENDERER MAY BE PRESENT FOR THE PURPOSE ALONG WITH AN AUTHORITY LETTER FROM THE TENDERER FOR THE SAME.
- iii. FINANCIAL BID OF THE TENDERERS WHOSE TECHNICAL BID HAS BEEN EXAMINED AND QUALIFIED BY IGRUA SHALL BE OPENED, FINANCIAL BID OF THE TENDERERS WHOSE TECHNICAL BID HAVE BEEN DISQUALIFIED OR RENDERED NULL AND VOID OR REJECTED SHALL NOT BE OPENED, DATE AND TIME OF OPENING OF FINANCIAL BID SHALL BE NOTIFIED IN ADVANCE TO THE TENDERER TECHNICAL BIDS HAVE BEEN QUALIFIED.

### **6. TENDER TO BE SUBMITTED IN THREE ENVELOPES:**

- i. TECHNICAL BID.
- ii. FINANCIAL BID.

DOCUMENTS TO BE FURNISHED FOR TECHNICAL BID AS MENTIONED IN APPENDIX -II SHALL BE ENCLOSED AND SEALED SEPARATELY IN ONE ENVELOPE AND LABELED AS "**TECHNICAL BID**" ALONG WITH THE NAME AND ADDRESS OF THE TENDERER AND THIS TENDER DOCUMENT SHALL BE ENCLOSED AND SEALED IN SEPARATE ENVELOPE AND LABELED AS "**FINANCIAL BID**" ALONG WITH THE NAME AND ADDRESS OF THE TENDERER THEREAFTER BOTH OF ABOVE MENTIONED BIDS SHALL BE ENCLOSED AND SEALED IN SEPARATE ENVELOPE BEARING THE NAME OF THE PROJECT AND NAME AND ADDRESS OF THE TENDERER.

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THE TENDERER SHALL SUBMIT THE TENDER IN THE ABOVE MENTIONED MANNER FAILING WHICH HIS TENDER SHALL BE RENDERED NULL AND VOID AND IS LIABLE FOR REJECTION.

### **7. EARNEST MONEY DEPOSIT:**

EVERY TENDER MUST BE ACCOMPANIED BY AN EARNEST MONEY DEPOSIT FOR RUPEES 15,000.00 (RUPEES FIFTEEN THOUSAND ONLY) IN THE FORM OR BANK GUARANTEE OR FIXED DEPOSIT RECEIPT OR DEMAND DRAFT DRAWN IN FAVOUR OF INDIRA GANDHI RASHTRIYA URAN AKADEMI FROM ANY SCHEDULED BANK PAYABLE AT RAE BARELI IN SEPARATE ENVELOPE.

TENDERS NOT ACCOMPANIED BY SUCH EARNEST MONEY DEPOSIT WILL BE REJECTED STRAIGHTAWAY. **EARNEST MONEY DEPOSIT** IN ANY OTHER FORM WILL NOT BE ACCEPTED.

**8.** AFTER OPENING OF FINANCIAL BID AND BEFORE ISSUANCE OF LETTER OF INTENT THE SUCCESSFUL TENDERER MAY BE CALLED FOR FINAL NEGOTIATION.

### **9. OWNER / EMPLOYERS RIGHT:**

THE EMPLOYER DOES NOT BIND HIMSELF TO ACCEPT THE LOWEST TENDER AND RESERVE THE RIGHT TO HIMSELF TO ACCEPT ANY TENDER AND OR REJECT ALL THE TENDERS RECEIVED WITH OUT ASSIGNING ANY REASON THEREOF.

**10.** TENDER INCOMPLETE IN ANY RESPECT WILL BE REJECTED.

**11.** IT IS PRESUMED THAT TENDERERS HAVE INSPECTED THE SITE AND THE FACILITIES LIKE WATER, ELECTRICITY, TELEPHONE, ROAD ETC. BEFORE SUBMITTING THE TENDERS.

FOR

**MANAGER STORE & PURCHASE**

**INDIRA GANDHI RASHTRIYA URAN AKADEMI,**

**FURSATGANJ AIRFIELD,**

**RAE BARELI – 229 302.**

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**APPENDIX – I**

<b>A.</b>	<b>NAME OF WORK</b>	<b>:</b>	<b>PROPOSED RENOVATION OF TYPE D-I RESIDENTIAL QUARTER BUILDING.</b>
<b>C.</b>	<b>EARNEST MONEY DEPOSIT</b>	<b>:</b>	<b>Rs. 15,000.00 (RUPEES FIFTEEN THOUSAND ONLY)</b>
<b>D.</b>	<b>SECURITY DEPOSIT</b>	<b>:</b>	<b>3% TO BE DEDUCTED FROM FIRST AND SECOND RUNNING ACCOUNT BILLS, BESIDES KEEPING THE EMD AS SECURITY DEPOSIT</b>
<b>E.</b>	<b>VALUE OF WORK FOR INTERIM BILLS</b>	<b>:</b>	<b>Rs. 2,50,000.00 ( RUPEES TWO LAKHS FIFTY THOUSAND ONLY)</b>
<b>F.</b>	<b>TIME LIMIT FOR COMPLETION OF WORK</b>	<b>:</b>	<b>30 Days (Excluding mobilization period of 07 days</b>
<b>G.</b>	<b>LIQUIDATED DAMAGES.</b>	<b>:</b>	<b>0.5% OF THE TOTAL COST OF WORK PER WEEK TO MAXIMUM OF 10%</b>
<b>H.</b>	<b>DEFFECTS LIABILITY PERIOD,</b>	<b>:</b>	<b>TWELVE MONTHS FROM THE DATE OF VIRTUAL COMPLETION AS CERTIFIED BY IGRUA.</b>
<b>I.</b>	<b>PERIOD FOR HONOURING INTERIM BILLS.</b>	<b>:</b>	<b>75% WITH IN 07 WORKING DAYS OF SUBMISSION OF R.A. BILLS.  REMAINING WITH IN 15 WORKING DAYS OF SUBMISSION OF R.A. BILLS.</b>
<b>J.</b>	<b>PERIOD OF CHECKING OF FINAL MEASUREMENTS.</b>	<b>:</b>	<b>WITHIN ONE MONTH FROM THE DATE OF SUBMISSION OF FINAL BILL.</b>

**APPENDIX-II**

**TECHNICAL REQUIREMENTS OF TENDERER.**

1. TENDERER SHOULD BE DULY REGISTERED WITH ANY GOVERNMENT AGENCY HAVING SPECIALIZED CIVIL / MECHANICAL DIVISION AND PRIOR EXPERIENCE OF SIMILAR TYPE OF JOB.
  - COPY OF THE RELEVANT REGISTRATION AND SUFFICIENT DOCUMENTS IN SUPPORT THAT THE TENDERER HAS EXECUTED A SINGLE JOB OF WORTH RS. 7,00,000/- (SEVEN LAKHS ONLY) OR TWO JOBS OF 5,00,000.00 (FIVE LAKHS) OR THREE JOBS OF 5,00,000.00 (FOUR LAKHS) OF SIMILAR NATURE.
2. TENDER SHOULD HAVE PERMANENT ACCOUNT NUMBER (PAN NUMBER).
  - COPY OF PAN CARD.
3. TENDERER SHOULD BE DULY REGISTERED WITH SALES TAX DEPARTMENT ALONG WITH TIN NUMBER.
  - COPY OF REGISTRATION AND TIN.
4. TENDERER SHOULD BE REGISTERED WITH P.F. DEPARTMENT.
  - COPY OF P.F. REGISTRATION.
5. BANK SOLVENCY CERTIFICATE TO BE ISSUED FROM THE BANK WHEREIN THE TENDERER IS HOLDING THE ACCOUNT AMOUNTING TO 7 LAKH RUPEES.
6. WORK ORDERS OF SIMILAR TYPE OF WORK COMPLETED.
  - COPIES OF THE WORK ORDERS ISSUED.
  - COMPLETION CERTIFICATE OR RECEIPT OF THE FINAL BILL.
7. SCHEDULE OF WORK TO BE PROVIDED BY THE TENDERER ALONG WITH A GANT CHART AND RESOURCE LIST SHOWING THE CRITICAL PATH AND PHASES OF WORK TO WHICH THE TENDERER SHALL ADHERE TO COMPLETE THE PROPOSED JOB IN 37 DAYS.
  - ONE SOFT COPY AND ONE HARD COPY OF THE PROPOSED SCHEDULE.

**DOCUMENTS REQUIRED UNDER THIS HEAD SHALL BE SEALED IN A SEPARATE ENVELOPE AND ENVELOPE SHALL BE LABELED AS TECHNICAL BID**

**INSTRUCTION TO THE TENDERER**

**1. GENERAL**

The tenderer shall carefully examine / study the whole of tender forms. Conditions of contract, specifications and bill of quantities, etc. before quoting. The tenderer is advised to visit and examine the site of work and surroundings and obtain for himself on his own responsibility and at his own risk all information that may be necessary for preparing the tender and entering into a contract for construction of works. The costs of visiting the site shall be at the tenderers own expense.

The tenderer shall bear all cost associated with the preparation and submission of his tender and the employer in no case be responsible and liable for those costs.

Omissions, neglect or failure on the part of tenderer to obtain requisite reliable information on any matter affecting his tender, the contract and the construction and completion and maintenance (during defects liability period) of the work shall not relieve the tenderer, whose tender is accepted, from any liability in respect of contract.

**2. TENDER TO REMAIN OPEN FOR ONE MONTH.**

The tenders submitted shall remain open for one month from the date of their opening. Any tenderer withdraw his tender before the expiry of the said period or make any modification to his tender, is not acceptable and the tender will be treated as having been rejected or abandoned and his earnest money deposit shall be forfeited.

**3. SIGNATURES.**

Each and every page must be signed by the tenderer or any person holding a power of attorney authorizing him to do so.

Such power of attorney shall be enclosed with tender. Tenderers failure to do so would render the tender for rejection.

**4. TENDERER NOT TO MAKE ALTERATIONS IN DOCUMENTS.**

No alterations which are made by tenderer in specifications or probable quantities accompanying the notice will be recognized and if any such alterations are made the tenderer is likely to be invalidated. Remarks and explanations should be set out in a covering letter and will become binding only if specifically excepted in writing by the employer.

**5. QUOTING RATES:**

The tenderer must quote his rates only on the proper form of the tender, both in figures and words and both in decimal coinage in the respective spaces provided thereof. Special care is to be taken to write the rates in figures and words in such a way so that no interpolation is possible. Erasures and alterations must be avoided, but if errors are made unavoidably while pricing the bill of quantities, the wrong figures and words must be neatly scored out under the initials of the tenderer and the correct figures and words neatly re-written but not over written. Over writing is not permitted and may entail rejection of the tender.

THE TENDER QUOTED IN PERCENTAGE 'ABOVE' OR 'BELOW THE ESTIMATED RATE' OR 'AS PER ESTIMATED RATE' SHALL BE RENDERED NULL AND VOID. THE TENDER SHALL BE QUOTED ONLY IN DECIMAL FIGURES AND WORDS DENOTING SAME.

**6. ALTERNATIVE ITEMS.**

Where alternative items are given, only the rates in figures and words are to be entered and not the amount thereof. A tender that does not show the rates in figures and words for the alternative items may be rejected. The employer reserves to himself the right to take into account any or all of the alternative items for the purpose of accepting a tender or to operate upon any or all of the said alternative items during the execution of work, partly or fully as required.

**7. ERRORS.**

Errors in the bills of quantities shall be dealt in the following manner.

- i. In the event of a discrepancy between the rates quoted in words and the rates in figures the rate in words shall prevail.
- ii. In the event of an error occurring in the amount column of the bills of quantities as a result of the wrong extension of the unit rate and the quantity, the unit and rate shall be regarded as firm and the extension shall be amended on the basis of the rates.
- iii. All errors in the totaling in the amount column and in carrying forward the totals shall be corrected.
- iv. Any omissions to include in the totals or to carry forward the prime cost and the percentage thereon or the provisional sums shall be corrected.

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8. The earnest money deposit of the successful tenderer will be retained as a part of the security deposit and the EMD of the unsuccessful tenderers will be refunded without any interest thereon as soon as the employer takes a decision on the tender or after the expiry of the validity of the tenders whichever is earlier.

This notice inviting tenders, the conditions of tender and duly completed form of tender will interlaid form part of agreement to be executed by the successful tenderer with the employer.

## **THE CONDITION OF TENDER**

### **1. Rates For Finished Works And To Include All Taxes, Including Vat And Contingent Costs.**

The rates quoted in the bills of quantities shall, unless Specified otherwise, be deemed to be for finished work Insitu, item by item as provided for, and shall include cost for all necessary material and labor, all necessary incidental charges for such as but not limited to water, electricity, tools and plant, machinery, shade, Aligning and marking out, clearing site, etc., access roads, and for all taxes octopi, excise, sales tax including VAT and for all taxes and any other tax or Duty levied by Government Central, state or local, or provide for in the condition of contract till the work is completed in all respects according to the meaning and Intent of the contract and delivered.

### **2. Quoted Rates Not Subject To Variation**

The rates shall be firm and not be subject to any variations In exchange rates, in taxes, duties, etc., in railway fright and the like, labor rates, etc. The rates are not subject to escalation otherwise than as specifically provided for in the Contract.

### **3. Specifications Applicable For General Builders Work**

The work is to be carried out general in accordance with the UTTAR PRADESH State PWD Standard specification, the I.S.S., NATIONAL BUILDING CODE (N.B.C) in addition to IGRUA` Specification, forming part of the tender documents. In the case of road works the respective highways department Manuals / specification or C.P.W.D. Specifications shall apply.

### **4. Specifications Applicable for W/S & Sanitary Works**

Water supply and Sanitary installations shall be executed to be in conformity with the rules, regulations and bye-laws of local municipal authorities and the CPWD specifications for water supply and sanitary installation works.

### **5. Specifications & Bills Of Quantities.**

- (1) The specifications and the bills of quantities forming parts of the contract are explanatory of and are complimentary to one another, representing together the works / installations to be carried out.
- (2) If the specifications or the accepted bills of quantities include which is nevertheless clearly to be inferred and which are obviously necessary for the proper completion of the works/ installations, all such parts shall be supplied and executed by the contractor at no extra charge.

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- (3) Anything contained in one or another of (a) the specifications and (b) the accepted bills of quantities and not found in the others will be equally binding as if contained in each of them.

### **6. Security Deposit.**

The successful tenderer is required to furnish performance security in any of the forms given below for an amount equivalent to 5% of the contract price.

1. Demand Draft –Earnest Money Deposit amounting to Rs. 15,000.00
2. 3% will be deducted from first and second R.A. Bills.
3. The Earnest Money Deposit (EMD) shall be adjusted towards performance security. The performance security will be refunded to the contractor within one year of virtual completion as certified by the Civil Engineering Personnel.

### **7. Format Agreement.**

The Tenderer whose tender is accepted is bound to formal agreement with the employer in accordance with the draft agreement, which will include the notice inviting tenders, these conditions, special conditions if any, the specifications etc. and other papers stated to be forming part thereof, but his liability under the contract shall commence from the date of written order to commence work, whether the formal agreement to drawn or not. The contractor shall bear all expenses in connection with the execution of the said agreement including fees for stamp and registration of documents as required time shall entail action against the contractor as provided for in the conditions of contract.

## **SAFETY CODE**

### **1. FIRST AID :**

- a. First Aid kit and appliances with adequate supplies of first aid medicines, sterilized dressing and bandages shall be kept and maintained in a readily accessible place.
- b. An injured person shall be taken to a public Hospital without loss of time in cases where the injury required

### **2. TEMPORARY SUPPORTS ACCESS AND MACHINERY :**

#### **a. Scaffolding :**

Suitable scaffolds shall be provided for workmen for all works that cannot be done safely from Ground of solid construction or from ladders. Scaffolding or staging more than 4.00 mtrs above the ground suspended from overhead supports or erected with stationery supports shall have a guard rail; Such scaffolding shall be so fastened as to prevent swaying from the building or structure.

#### **b. Working platforms :**

Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and if the height of the platform, gangway or stairway is more than 4 m above ground level or floor level, they shall be closely boarded and shall have adequate width and be suitably fenced.

#### **c. Ladders :**

When a ladder is to be used it shall be of rigid construction. The steps shall have a minimum width of 450mm and maximum rise between the steps shall be 300 mm. Ladders shall when placed in position shall have an inclination not steeper than  $\frac{1}{4} : 1$  (  $\frac{1}{4}$  Horizontal : 1 vertical). Every ladder shall be securely fixed, No portable single ladder shall be over 9.00 mtrs. In length.

#### **d. Hoisting Machines / Cranes :**

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Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to following standards or conditions:

1. These shall be of good mechanical construction, sound material and of adequate strength and free from patent defects and shall be kept in good repair & in good working order.
2. Every rope used in hoisting or lowering materials or as means of suspension, shall be of durable quality and adequate strength and free from patent defects.
3. Every crane driver of 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 scaffolding winch.
4. In case of every hoisting machine and of every chain ring hook shackle, shovel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gears referred to above shall be plainly marked with safe working load. In case of hoisting machine having a variable safe working load, each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of and during testing.
5. In case of departmental machines, the safe working load shall be notified by the Engineer. As regards contractor's machines, the contractor shall notify the safe working load of the machine to the Engineer whenever he brings any machinery to site of work and get it verified by the Engineer concerned.
6. Motors, gearing, transmission, electrical wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum the risk any part of a suspended load becoming accidentally displaced, installations which are already energized, insulating mat, wearing apparel such as gloves, sleeves and boots as may be necessary, should be provided. The workers shall not wear and rings watches, and carry keys or other materials which are good conductors of electricity.

#### **3. PERSONAL SAFETY EQUIPMENT :**

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

1. All personnel working within site shall be provided with safety helmets.
2. Those working at heights shall wear safety belts and anchor them to firm support while working.
3. All welders shall wear Welding Goggles while doing welding work and metal workers shall be provided with safety gloves, persons employed on metal cutting and grinding shall wear safety gloves.

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4. Workers employed on mixing asphaltic materials, cement mortars and concrete shall be provided with protective footwear, rubber hand gloves.
5. Suitable face masks and safety glasses shall be provided while spraying of paint, any dust creating activity in being carried out.

#### **4. OTHER SAFETY MEASURES :**

##### **a. Excavation and Trenching :**

All Trenches, 1.25 m or more in depth, shall at all times be supplied with at least one ladder for each 30m length or fraction thereof. The ladder shall be extended from bottom of the trench to at least 1 m above the surface of the ground. Sides of trenches which are 1.5 m or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, So as to avoid the danger of sides collapsing. The excavated material shall not be placed within 1.5 m. of the edges of the trenches or half of the depth of trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

##### **b. Demolition :**

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

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

##### **c. Sewers & Manholes :**

When workers are employed in sewers and manholes which are in use, the contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into them and the manhole so opened shall be cordoned off with suitable including and provided with warning signals or boards to prevent accidents to the public.

##### **d. Electrical Equipment :**

All necessary precautions shall be taken to prevent any danger from electrical equipment/wiring connections etc.

##### **e. Stacking of material :**

No materials at any of the sites of work shall be so stacked or placed so as to cause danger or inconvenience to any of the person or public.

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

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f. Openings :

Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 m. Wherever there are open excavations in ground they shall be fenced off by suitable railing and danger signals installed at night so as to prevent untoward accident.

g. Means of access :

Safe means of access shall be provided to all working places.

h. Maintenance :

All scaffolds, ladders, platforms and other equipments shall be maintained properly to ensure safety of the workers and shall not be altered or removed while it is in use.

### 5. GENERAL

The contractor shall not employ men or women below the age of 18 years.

These safety provisions should be brought to notice of all concerned by display on a notice board at the prominent place at the work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.

To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor, shall be open to inspection by the Labour Officer, Engineers of the Department or their representatives.

NOTE: Now withstanding the above clauses from 1 to 5, there is nothing in these to exempt the contractor from the operations of any act or rule in force in the republic of India.

### **MODEL RULES FOR THE PROTECTIONS OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS**

1. APPLICATION :

These rules shall apply to all buildings and constructions works covered in this contract.

2. DEFINITION

- a) Work place means places at which, on an average 50 workers are employed in connection with construction work.
- b) Large work place means a place at which average 500 or more workers are employed in connection with construction work.

3. FIRST AID :

- a) At every work place, there shall be maintained in easily accessible place first aid appliances including an adequate supply of sterilized dressings and sterilized cotton wool. The appliances shall be kept in good order and

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in a large work place shall be placed under the charge of a responsible person who shall be readily available during working hours.

- b) At large work places, where hospital facilities are not available within easy distance of the works, First aid posts shall be established and be run by trained compounders.
- c) Where large work places are remote from regular hospitals, an indoor ward shall be provided with one bed for every 250 employees.
- d) Where large work places are situated in cities, towns in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to the hospitals. At other work places, some conveyance facilities such as a car, shall be kept readily available to take injured person or persons, suddenly ill, to the nearest hospital.

#### **4. DRINKING WATER :**

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

#### **5. WASHING AND BATHING PLACES :**

- a) Adequate washing and bathing places shall be provided separately for men and women.
- b) Such places shall be kept in clean & drained condition.

#### **6. SCALES OF ACCOMMODATION IN LATRINES & URINALS :**

There shall be provided within the precincts of every work place, Latrines and Urinals in an accessible place and the accommodation, separate for each of them shall not be less than the following scale :

No. of Seats

- a) Where the number of persons does not exceed 50-  
2 nos -
- b) Where the number of persons exceeds 50 but does not exceed 100 - 3  
nos
- c) For every additional 100 - 3 nos per 100

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In particular cases, the Engineer shall have the powers to vary the scale where necessary.

#### **7. LATRINES AND URINALS FOR WOMEN :**

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 in Rule-6 those for men shall be similarly marked 'For Men Only'. A poster showing the figure of a man or woman shall also be exhibited at the entrance of latrines for the respective sex. There shall be adequate supply of water close to the urinals and latrines.

#### **8. LATRINES & URINALS :**

All the Latrines and Urinals shall be kept in good sanitary condition.

#### **9. CONSTRUCTION OF LATRINES :**

The inside walls shall be constructed of masonry or some suitable heat resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. The dates of cement washing shall be noted in a register maintained for this purpose and kept available for inspection. Latrines will not be of a standard lower than the borehole system and should have thatched roof.

#### **10. DISPOSAL OF EXCRETE :**

Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excrete shall be made by septic tank or leach pit duly approved by the Engineer and in conformity with the requirements of local public health authorities.

#### **11. PROVISION OF SHELTER DURING REST :**

At every work place there shall be provided free of cost, two suitable sheds, one for meals and the other for rest separately for men and women for the use of labour. The height of the shelter shall not be less than 3.5 m from the floor level, to the lowest part of the roof. The sheds should be roofed with a wall around not less than 750 mm high. Sheds should be kept clean and the space should be on the basis of at least 0.50 sq. m per head.

#### **12. CRECHES:**

- a) AT every work place, at which 50 or more women workers are ordinarily employed there shall be provided two huts for the use of children under the age of 6 years belonging to such women, one hut shall be used for infants games and play and the other as their bed room. The huts shall not be constructed on a lower standard than the following
  - i) Thatched roofs.
  - ii) Mud floors and walls.
  - iii) Planks spread over the Mud floor and covered with matting.

The huts shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the place clean. There shall be two dais in attendance. Sanitary utensils shall be

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provided to the satisfaction of the Health Officer of the area concerned. The use of the hut shall be restricted to, children, their attendants and mothers of the children.

- b) 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 the children of women workers.
- c) The sizes of crèches shall vary according to the number of women workers.
- d) The crèche or crèches shall be properly maintained and necessary equipment like toys, etc, shall be provided.

#### 13. CANTEEN :

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

14. The above rules shall be incorporated in the contracts and notices inviting tenders and shall form an integral part of the contract.

**SECTION – II**

**ADDITIONAL  
CONDITIONS OF THE  
TENDER**

## ADDITIONAL CONDITIONS OF TENDER

A. GENERAL :

1. Labour :

The Contractor shall strictly restrict his labour and materials within the site. No trespassing on the neighboring sites shall be allowed nor tolerated. The contractor will be responsible for any compensation asked for by the neighbors for damage and nuisance caused by his labour.

The contractor shall obtain all necessary permissions on his part as well as the owner's part from department of labour. He should pay the necessary fees and maintain the required Registers, Documents in order at the site.

Contractors are responsible for adhering to all the statutory obligations, acts, rules & regulations of land etc. like work man compensation act. ESIS. Minimum wages act. Child labour, P.F. & Gratuity, Antiquities etc & indemnify the owners completely.

The contractor should be a duly registered contractor under PF Acts. He shall ensure that all statutory payments are made to the concerned Authorities directly. The copies of the challans of the payments made towards ESIS & PF should be delivered to the owners every month within 7 days of payments made. The contractor is fully responsible for the statutory deductions that are to be made towards PF from the salary is and deposition of the same to the Authorities. He will give an undertaking of the same as required by the owners.

2. Statuary Deductions:

The owners will debit from each interim and final bill all statutory deductions that are to be made, mainly

- i. T.DS. for income Tax
- ii. VAT

or any other deductions that are and will be mandatory and necessary if any during the course of contract.

3. Indemnity :

The Contractors indemnifies the owner from and against any claims, demands, proceeding, damages, costs and expenses which may be brought or made against the owner due to the

Contractor not conforming or complying with any of the provisions or requirements or acts of central, State or local Government and Rules, Regulations and Bye Laws of Local authorities such as Municipal Corporations, Panchayat, Collector in connection with this work or labour employed on the same

4. CLAIMS :

- i. No claims for idle labours, tools, plant & equipment whatsoever the reason would be payable under any circumstances.
- ii. No claim for escalation in prices of materials and labour will be determined during the contract period.

5. The owner reserves the right to supply following materials if required at his own desertion

- i. Reinforcement steel

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- ii. Structural steel
  - iii. Cement
6. Allowable wastage of steel and cement is max. 3 % of total supply.
  7. The contractor shall submit along with his quotation the Rate Analysis for all flooring items as described in Schedule of Quantities. Similarly the owner may delete the item of Aluminum windows and specialist flooring items from the scope of work of the contractor and get it executed from specialized agencies. In that case the contractor will be required to extend all necessary coordination , co-operation to such Agency for which he will be paid 5% of the cost of work executed by the specialized agency.

### **B. IGRUA TO DIRECT, SUPERVISE AND APPROVE WORK**

1. The work shall be carries out strictly in accordance with the details and specifications and under the instructions, supervision and approval of IGRUA in all respects.
2. The owners in consultation with IGRUAs may delete some portions of the works and in such cases the contractor will have no right to claim any compensation for such portions of works deleted. However if the owner desires that some item or items of work already in the Tender, be taken away from the Main contractor will be required to provide all the necessary co-ordination & infrastructures facilities to the other person engaged by the owner, at no extra cost. If the Main contractor has purchased material or made arrangements the owner will pay for such materials or arrangements the owner ell pay for such materials or arrangements and take over the same from the main contractor.
3. IGRUA may ask the contractor to submit the samples of the materials and workmanship to be incorporated in the work for his approval. The samples approved materials and workmanship incorporated will have to confirm with each other. In case it does not the same shall be rejected forthwith.

### **C. TESITING OF WORKS & MATERIALS**

The Contractor shall, if required by IGRUAs arrange to test materials and/ or portions of completed works at his own cost, in order to prove their soundness and efficiency if after any such test the work or portion of works is found in the opinion of IGRUAs to be defective or unsound, the contractor shall pull down and re-execute the same at his own cost. Defective materials and spoils of dismantled work shall be removed from the site forthwith.

### **LABORATORY TESTS OF CUBES OF CONCRETE**

The Contractor will arrange Laboratory tests, through any of the approved laboratories, of cubes at his own expenses. This will be done at desired intervals in the manner laid down by ISI. 456 for Controlled Concrete.

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A site laboratory for tests of various ingredients of concrete mix etc, will be established by the contractor and maintained at his own expenses. Site tests will be carried out as and when considered necessary by IGRUAs. A trained person capable of understanding the site Engineer's instructions should be appointed to carry out site tests. The site laboratory will be equipped with:

- a) Water cement ratio detector.
- b) Gammon Morgan Flask.
- c) Standard concrete cube steel molds.
- d) Slump cones
- e) Apparatus for determining bulkage of sand and impurities.
- f) Sieve analysis apparatus.
- g) Machine to measure compressive strength of concret.

A register will be maintained at site giving the following details

- 1) Description of portion of concreting and date.
- 2) Details to show where concreting commenced and how proceeded.
- 3) Progressive mos. On cubes for various portions of concrete may be noted along with code prefixes if any marks on the cube.
- 4) Signatures of contractor's and owner's supervisors (this will be accepted by both parties).
- 5) Signatures as in 4) above will appear (in the form of initials only) on each cube cast.

#### **D. LIQUIDATED DAMAGES /BONUS**

The completion period of the work as entered in the Agreement shall be strictly adhered to by the contractor, and shall be revoked from the date on which the order to commence work is issued to the contractor in writing.

With the view of proper implementation of the clause the contractor will follow the procedure laid down here below.

- a) Within two weeks of the date of order to commence the work the contractor will make out a programme of progress of work, keeping in view the target date of completion. He will send two copies of this programme to IGRUAs.
- b) The contractor shall submit in the weekly meeting a report of the work carried out by him in previous week and submit a programme of the activities planned for the next week. In case and activity in lagging behind the scheduled programme he will have to give valid reasons for the same along with the corrective measures he wishes to incorporate to make up the time lost.

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- c) Time is the essence of this contract. In case of failure to achieve the targeted dates to complete the work in time the owner will recover an amount equivalent to Rs. 0.10% of the tendered amount per day as liquidated damages. Maximum amount towards liquidated damages being limited to 5% of the Tendered amount.
- d) The clause of liquidated damages will be strictly enforced. Even with the levy of liquidated damages only a certain period of time as decided by IGRUA may be allowed if it is felt that the work is being delayed on account of material or want of proper organizing skills etc. on the part of the contractor, the owner will have the right to terminate the contract.

#### **E. FACILITIES AT WORKSITE**

##### **1) ELECTRICITY :**

The contractor shall at his own cost, and as per the Indian Electricity Rules provide and maintain the additional network of electric lines. The contractor shall obtain permission from the electrical Rules provide and maintain the additional network of electric lines. The contractor shall obtain permission from the electrical inspector, for the same before commencing any work at his own cost. The main contractor shall permit the sub-contractor to use the electricity from his network, without any extra cost. The main and sub-contractors shall co-ordinate their activities mutually.

##### **2) WATER :**

For construction use one of the existing Bore well along with the pump shall be handed over to the contractor. The Contractor shall draw water from his well and maintain the pump. The Contractor shall make his own arrangements to provide and maintain in good working condition, sub-storage tanks, distribution lines and necessary pumps at his own expenses.

The main contractor shall permit the sub-contractor to draw water from his lines, at no extra cost.

Unwarranted use of water shall not be permitted, and any misuse so established shall be recovered from the contractor at the actual.

Drinking water shall be made available at existing point of supply during the supply hours of P.M.C. The contractor is required to collect from this point and store the water for his use at his own cost.

##### **3) TELEPHONE :**

One Telephone connection will be made available to the contractor. The contractor shall bear all the expenses connecting and disconnecting the same and pay the bimonthly bills to Telecom regularly.

##### **4) PLACE FOR LABOUR CAMP/ACCOMMODTION :**

Only 15 key personnel will be allowed an accommodation at site Owner's choice. Adequate sanitary facilities shall be provided by the Contractor for these persons staying on site. These facilities are purely temporary. It will be the responsibility of the contractor to dismantle and remove from the site

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these temporary structures, clean the site and hand over the land clean and neat to owners on completion of the work.

### APPENDIX TO ADDITIONAL CONDITIONS

#### ELECTRICITY – ALTERNATIVE ARRANGEMENT :

To overcome any eventuality of break/failure in power supply and considering the local shut downs weekly or otherwise by the U.P.P.C.L. the contractor shall arrange alternative power at his own cost.

#### ADEQUATE AND COMPETENT ENGINEERING STAFF :

The contractor shall appoint an experienced Project Engineer along with minimum one Supervisor to look after the work in terms of time and quality, they shall be on site full time.

#### INFRASTRUCTURE :

The contractor shall deploy and maintain sufficient number of concrete mixer, electrically or petrol operated vibrators, water pumps and flexible pipes, water storage tanks, Floor compactor, Roller etc,. ie. Everything required to carry out the job speedily and efficiently. He shall not shift any Of the machinery without prior approval of IGRUA /owner.

#### SECRECY :

The contractor shall not pass on any information regarding this work such as documents or even verbally to any person or company. All documents shall be kept in safe custody of a responsible person.

No one without the written permission of the owner shall be allowed to visit the site. Similarly no photographs, video shoot out shall be taken without the permission of the owner.

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### **1. CONTRACT**

a) DOCUMENT :

1. Articles of Agreement.
2. Conditions of Contract
3. The Tender Document Comprising of
  1. Tender Notice
  2. Conditions of Tender
  3. Special Conditions
  4. Specifications
  5. Preamble, Mode of Measurement & Payment

The Contract document is complimentary, what is called for in, anyone shall be as binding as if called for by all.

b) TYPE

The contract is an item Rate contract. The contractor shall be paid for the actual quantity of work done as measured at site, at the rates quoted by him in the Bill of quantities.

c) SCOPE :

The scope of contract is to complete the said, "Works" in all respects in accordance with this contract under the direction of and to the satisfaction of IGRUA.

The General Character and the Scope of work is illustrated and defined by the specifications and Bills of Quantities.

The Specifications are general and the Quantities are provisional. They are meant to indicate the intent of the work and provide a uniform basis for tendering.

The owners reserve the right to change the specifications, increase or decrease any of the quantities or to totally omit any item of work and change or modify the specifications.

Such changes and modifications shall not vitiate the contract but shall be corrected and treated as variations.

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### **2. DEFINITIONS & MEANINGS OF TERMS**

1. OWNER / EMPLOYER :  
The owner / employer is the party who promotes the project and employs.
  - i. IGRUA to design the project and administer the contract.
  - ii. The contractor to carry out and complete the works in every respect in accordance with the contract under the direction of and to the reasonable satisfaction of IGRUA.
2. IGRUA / ENGINEER  
  
IGRUA / Engineer is a person or a party who is appointed by the owner / employer to design, supervise the works and administer the contract.
3. CONTRACTOR :  
The contractor is a person or party whose bid to carry out the works has been accepted by the owners / employer.
4. THE SITE :  
The site shall mean the site of contract work as defined in the Tender Document.
5. THE WORKS :  
The works are those the contract requires contractor to construct, install and hand over to the owner/ employer
6. THE CONTRACTORS TENDER/BID :  
The contractors' Tender / Bid is the completed document as per the instructions along with the necessary enclosures submitted by the contractor to owner / employer.
7. THE LAW :  
The law of the place of the work shall govern the construction under this contract.
8. DURATION:  
The days are calendar days and Months are calendar Months.
9. THE DATE OF POSSESSION OF SITE :  
The date of possession of site is the date of which the owner/ employer hands over the site to contractor.
10. DATE OF COMMENCEMENT OF THE WORK:  
Date of commencement shall be the date seven days after the date of possession of site.
11. INTENDED DATE OF COMPLETION :  
Intended date of completion is the date by which the contractor is supposed to virtually complete the works.
12. ORIGINAL COMPLETION PERIOD :

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The period between date of commencement and original intended date of completion will be termed as original completion period.

13. **THE DATE OF VIRTUAL COMPLETION :**

The date of virtual completion of project or specified area of a project is the date when construction is sufficiently completed in accordance with the contract document as modified by any change / variation order agreed to by parties and IGRUA / Engineer notifies that the works can be used by the owner / employer.

14. **DATE OF COMMENCEMENT OF DEFECTS LIABILITY PERIOD:**

The defects liability period shall commence from the date of issuing the virtual completion certificate :

i. VARIATIONS :

A variation is an instruction given by IGRUA or owner which varies the work, the term variation used in these conditions mean alterations or modifications of

ii. Qualities as specified in specification.

iii. Quantities as referred in the Bill of quantities including additions, omissions or substitutions of any work.

15. DEFECTS:

A defect is any part of work not completed in accordance with the contract.

16. SUB-CONTRACTORS:

A sub-contractor is a person or party who has direct contract with the contractor and it includes one who renders specialized services as required by design and specifications of this work. Anyone doing work on a piece rate basis shall be deemed a sub-contractor.

17. COMPENSATION EVENT:

Compensation event is the event affecting the performance of the contractor as required by the contract when he is not the cause of the same.

18. EQUIPMENT:

The equipment is the contractor's machinery and vehicles brought temporarily to the site to construct the work

19. TEMPORARY WORKS:

Temporary works are the works necessary for the construction or installation of the work under the contract which are designed, constructed and subsequently removed by the contractor.

20. CONTRACTOR'S RISKS:

All risks of loss or damage to physical property and of personal injury and death which arise during and in consequences of the performance of the contract other than expected risks are responsibility of the contractor.

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### **21. EMPLOYER'S RISKS:**

The Employer is responsible for expected risks which are (a) in so far as they directly affect execution of the works in Employer's country, risk of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military upsurge civil war, riot, commotion or disorder (unless restricted to contractor's employees), and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive or because due solely to design of works other than contractor's design.

## **A) GENERAL CONDITIONS OF CONTRACT**

### **A.1. SCOPE OF WORK**

The contractor shall carry out and complete the said work in every respect in accordance with this contract & under the directions of and to the satisfaction of IGRUA. IGRUA shall have the absolute discretion and from time to time issue further specifications, written instructions, detail directions and explanations which are hereafter collectively referred to as "Instructions" in regard to:

- a) The variation or modification of the design, quality or quantity of works or the additions or omission or substitution of any work.
- b) Any discrepancy between the schedule of quantities and/ or specification.
- c) The removal from the site of any material brought thereon by the contractor and substitution of any material therefore.
- d) The removal and/ or re-execution of any works executed by the contractor.
- e) The dismissal from the works of any persons employed thereupon.
- f) The opening up or inspection of any work covered up.
- g) The amending and making good of any defects.

The contractor shall forthwith comply with and duly execute any work comprised in such IGRUA's instructions.

### **A.2 SCHEDULE OF QUANTITIES AND AGREEMENT**

The contract shall be executed in triplicate and IGRUA, the Employer and the contractor shall be entitled to one executed copy each. Before the issue of the final certificate to the Contractor he shall forthwith return to IGRUA all the specifications.

### **A.3 SCHEDULE OF QUANTITIES**

The schedule of quantities, unless otherwise stated shall be deemed to have been prepared in accordance with the mode of measurement given under preambles to respective work types.

Any error in description or in quantity or in omission of items from the schedule of quantities shall not vitiate this contract but shall be rectified and the value thereof as ascertained shall be added to, or deducted, from

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the contract amount (as the case may be) provided that no rectification of errors, if any, shall be allowed in the contractor's schedule of rates.

### **A.4 SUFFICIENCY OF SCHEDULE OF QUANTITIES**

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 prices stated in the Schedule of Quantities and / or to the schedule of rates and prices which rates and prices shall cover all his obligations under the contract, and all matters and things necessary for the proper completion of the works.

### **A.5 VARIATIONS**

No alterations, omission or variation shall vitiate this contract but in case the IGRUA thinks proper at any time during the progress of the work to make any alteration in, or additions to or omissions from, the works or any alteration in kind and quality of the materials to be used therein and shall give notice thereof in writing under his hand to the contractor, the contractor shall alter, add to, or omit from as the case may be, in accordance with such notice, but the contractor shall not do any work extra to or make any alterations or additions to or omission from the works or any deviation from any of the provisions of contract, stipulation or specification without the previous consent in writing of IGRUA. The value of such alterations, additions or omissions shall in all cases be determined by IGRUA, and the same shall be added to, or, deducted from, the contract amount, as the case may be.

### **A.6 STANDARD SPECIFICATION AND CODE OF PRACTICE**

- a. All Standard Specification and Code of Practice referred to in the Specification, etc, shall mean the latest editions together with all current amendments thereto.
- b. The Contractor is deemed to have considered the above while pricing and no additional payment shall be made on this account.

### **A.7 OPERATION AND MAINTENANCE MANUALS**

The Contractor shall prepare and submit all Operation and maintenance manual (s) to the Engineer prior to the handing over of the works and the cost for the manuals shall be included in the rates unless specifically identified in the Bill of Quantities.

### **A.8 CLEANING THE WORKS**

The Contractor shall remove at frequent interval or as and when instructed by the Engineer all rubbish and accumulated debris to a tip approved by the Engineer and on completion of the Contract he shall remove all plant, equipment, temporary works and buildings, etc. The Works shall be handed over in clean. Tidy conditions to the satisfaction of the Employer and Engineer. The cost for the compliance with this Clause shall be included to the rates.

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### **A.9 PROTECTION OF THE WORKS**

The Contractor shall provide adequate protection to the finished works against any form of damage or deterioration. This shall include but not limited to protective coatings, tapes, casings, guard rails, and the like, which shall be cleared away on completion. Tarpaulins shall be provided if necessary. Care shall be taken to mask self finished surfaces during the application of adjacent insitu work. Unless separate or specific item is provided the cost shall be deemed to be subsidiary to the Principal item (s).

### **A.10 ORDER OF MATERIALS**

The Contractor is to ascertain the quantities of materials required from the Specification etc. The quantities indicated in the Bill of Materials is for guidance only and shall not be used as a basis for ordering materials.

### **A.11 NOTICE OF OPERATIONS**

No operation shall be carried out without full and complete notice having been given to the Engineer by the Contractor sufficiently in advance of the time of operation to enable the Engineer to make such arrangements as he may deem necessary for its inspection and checking.

The contractor shall supply the following information in writing to the Engineer:

- a. On the day before the last day of each working week his detailed intended programme of work for the following week.
- b. Each day a statement of his intended activities for the following day showing labour and plant resources.

### **A.12 METHOD OF CONSTRUCTION**

Unless otherwise confirmed in writing. Acceptance of the Tender will not signify acceptance of the contractor's proposed methods of construction or materials. Nor will it in any way relieve the contractor or any of his responsibilities for the works. Further it will not be accepted as a basis for claiming additional compensation where the proposed methods of construction, its end results, or the proposed materials do not comply with the Specification and are not approved.

Within ten days after the date of the Handing Over of the site the Contractor shall submit to the Engineer for review and consent a general description of proposed arrangements and methods for the execution of the Works, including inter alia temporary offices, buildings, access roads, constructional plant and its intended production output working shift arrangements, power arrangements, supply of materials, stone crushing, aggregate production and storage, cement handling, concrete mixing and handling methods of excavation, dealing with water, testing methods and facilities.

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The Engineer's consent shall not relieve the contractor of his responsibilities for safety, adherence to the programme, compliance with the specifications or any other requirements of the Contract.

Any approval, consent, acceptance or agreement, by the Engineer or Contractor's Equipment or its operations or of any construction procedure or of any materials to be used in construction or of any temporary work will not imply any relaxation of the Clauses of the Specification governing the quality of the materials in any requirement of the contract.

During the execution of the works the Contractor shall also submit to the Engineer full and detailed particulars of any proposed amendments to the arrangements and methods previously submitted.

If any equipment appliances types of quality of scaffolding forms and the like are in the opinion of the Engineer, either unsafe or unsuitable for accurate and efficient construction the Engineer may instruct the Contractor to replace or modify the item or items concerned whether or not the Contractor is in agreement with such opinion the Contractor shall immediately make the required alterations without any additional payment.

#### **A.13 STANDARD SPECIFICATIONS**

Unless otherwise specified or approved the works shall be executed and all materials and workmanship shall be in accordance with latest editions available at the date of Tender return of the works of the relevant British Standards or equivalent internationally accepted standards.

The contractor may propose that the materials and workmanship be defined in accordance with the requirements of other specifications and the Contractor may execute the Works in accordance with such other specifications as may be approved by the Engineer. A translation into the English language of a specification in another language shall be submitted to the Engineer with any request that it be adopted.

Local Regulations, Standard and Laws providing for a higher standard than those described above shall have preference over any other standards.

The Contractor shall ensure that all local Regulations, standards and Laws are complied with especially in regard to the submission of designs and materials to local authorities for approval.

The Contractor shall supply and retain on site for the exclusive use of the engineer all codes and standards referred to in the Specification which shall remain with the Engineer for his exclusive use until the end of the construction period but shall remain the property of the Contractor.

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**A.14 PROTECTION OF EXISTING PROPERTY**

The Contractor shall take every precaution to preserve from damage any property, including existing buildings equipment, furniture, fittings. Walls, Roads, paths, Trees and shrubs, which are situated on or near the site of the Works and shall not demolish or remove any property except on the specific instructions of the Engineer. Where any building or property is in close proximity to the works (including any excavation or pumping operation ), the Contractor shall support shore or otherwise protect such building and property and shall be responsible for making good of any damage which in the opinion of the Engineer is attributable to or in consequence of carrying out of the works.

**A.15 WORK PREPARED AND MATERIALS OBTAINED**

The Contractor shall notify the Engineer of the workshops and places where work is being or is intended to be prepared or from which manufactured articles or materials are being or are intended to be supplied. The Contractor shall be responsible for ensuring that quality control techniques are used and reports submitted in accordance with the relevant provisions of the Specification. The Contractor shall submit progress report to the Engineer at each regular site progress meeting and shall notify the Engineer of the times when such work, articles and materials will be ready for inspection so that the Engineer may inspect the work, articles or materials without delaying dispatch to the site. Such notices shall be given at such times as will permit inspection and testing of the whole of the work by the Engineer at all stages of the processes of manufacture, and not only when the goods are completed ready for dispatch.

**A.16 PROGRESS RECORDS**

**Photographs**

Colour photographs showing the progress of the Works shall be taken every fortnight by the Contractor from positions to be selected by the Engineer.

Approximately 12 colour photographs shall be taken each fortnight. Six prints 200 x 150mm of each photograph together with the negative shall be handed to the Engineer. Each photograph shall be numbered and a statement shall be submitted giving the location, date when taken and a brief description of title. The Contractor shall also provide suitable albums of selected progress photographs each able to contain a minimum of forty prints.

The copyright of all photographs shall be vested in the Employer the photographs shall not be used for any other purpose whatsoever without the Employer's approval.

**A.17 WARRANTIES AND GUARANTEES**

The Contractor shall meet the requirements of Government Authorities relating to warranties and guarantees for works executed or materials or

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goods or equipment supplied under the Contract. The benefits of all such warranties and guarantees which extend beyond the period of Maintenance shall be assigned by the Contractor to the Employer for the unexpired portion thereof.

### **B1.1. VARIATION IN THE WORK**

The owner / employer may at any time, before or after the beginning of the works, which are to be executed according to this contract, modify the works by and increase or decrease by sending a written notice to the contractor; provided that this modification will not cause an increase or decrease of more than 25% (Twenty five percent) in the value of contract. The modification may be in kind, quality, quantity, weights, dimensions of the works shown or described in the documents of the contract. He also may order the cancellation of any work or part of it without its replacement by another work.

### **B. 1.2.**

The owner / employer can change the levels, issue new drawings, charts, of new or different descriptions. The contractor has to submit to and execute such modifications as if they were included originally among the works required to be carried out according to this contract.

These modifications do not lessen the responsibility of the contractor to execute the work in a perfect manner and do not give him the right to demand any compensation or increase in the rates because of increase or decrease in the quantities of the work as mentioned above.

### **B.1.3 ATTENDING TO THE UNCORRECTED DEFECTS AND RECOVERY OF EXPENSES**

In the event of contractor's failure to rectify the defects in stipulated time the owner may employ and pay other contractor to amend and make good such defects, shrinkage, settlement or other faults and all damages, loss and expenses consequent thereon or incidental there to shall be made good and borne by the contractor and such damage, loss or expenses shall be recoverable from him by the owner.

## **B.2. RIGHTS**

### **B2.1 TO GIVE INSTRUCTIONS :**

IGRUA may in its absolute discretion and from time to time issue further drawing, details and/ or written instructions, written directions and written explanations all of which will be collectively referred to as IGRUA's instructions. All such drawings and instructions shall be consistent with the contract document, true developments thereof and reasonably inferable there from. These instructions will be in regards to :

1. Variations or modifications of the design.
2. The quantity or quantity of the works or additions or omissions or substitutions of any work.
3. Any discrepancy or divergence between drawings and or specifications.

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4. The removal and / or re-execution of any work executed by the contractor.
5. The opening up for inspection of any work covered up.
6. The amending and making good of any defects under defects liability period.
7. The removal from the site any materials brought thereon by the contractor and substitutions of any other material therefore.
8. Assignment & sub-letting.
9. Delay and extension of time limit.
10. The postponement of any work to be executed under the provisions of this contract.
11. Dismiss from works any person employed thereon by the contractor who in the opinion of IGRUA is incompetent and / or misconducts himself. Such person shall not again be employed on the works without permission of IGRUA.

### **B 2.2. CERTIFICATION OF WORKS & PAYMENT:**

IGRUA has authority to check the bills of contractor and certify the payments from time to time as per the terms of contract and issue virtual and Final completion certificate at proper time.

#### **B2.2.3 WITH HOLDING PAYMENTS :**

IGRUA may withhold or on account of a subsequently discovered evidence nullify the whole or part of any certificate to such extent as may be necessary in his reasonable opinion to protect the owner from loss on account of :

1. Defective work not remedied.
2. Failure of the contractor to make payments properly to sub-contractor or for materials or labour.
3. Damage to another contractor or sub-contractor.

When the above grounds are removed payments shall be made for amounts withheld because of them.

### **B2.3. ACCESS TO THE WORK:**

IGRUA and his representatives shall at all reasonable times have access to the works and workshops or other places of the contractor where work is being prepared for the contract and when works is to be so prepared in workshops or other place of a sub-contractor (whether or not a nominated sub-contractor) the contractor shall have a term in the sub-contract so as to secure a similar access to those workshops or places for IGRUA and His representatives and shall do all things reasonably necessary to make such right effective.

### **B2.4. DISMISSAL OF WORKMEN :**

The contractor shall on request of IGRUA immediately dismiss from the works any persons employed thereon by him who may, in the opinion of IGRUA be incompetent or misconduct himself and such persons shall not be again employed on the works without the permission of IGRUA.

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### **B2.5**

#### **DUTIES**

- a) IGRUA shall give proper supervision and necessary instructions on the work to see that the work is being executed within the true meaning of contract.
- b) He shall keep the owner informed about the progress of work.
- c) He shall endeavor to guard the owner against the defects and deficiencies in the work of the contractor by identifying and getting corrected the same.
- d) He shall give the clarifications regarding the queries about the contract document.
- e) He shall give decisions on contractual matters fairly and impartially.
- f) He shall check and certify the bill for payments from time to time.
- g) He shall determine the rates of extra items / variations.
- h) He shall prepare necessary drawing and details and issue them from time to time so that work is not held up for want of the same.

### **B.3.**

#### **RIGHTS**

##### **B 3.1**

The contractor can ask for clarifications regarding

- i. Drawings & specifications
- ii. Instructions directions
- iii. Contract clauses.

##### **B3.2.**

The Contractor is entitled to payments from time to time for the works carried out and certificates issued by IGRUA to that effect, from the owner in stipulated time period.

### **B.4.**

#### **DUTIES**

#### **B .1 CONTRACTOR TO PROVIDE EVERYTHING NECESSARY AT HIS OWN COST**

The contractor shall provide at his cost everything necessary for the proper execution of works according to the intent and meaning of the drawings, Schedule of quantities and specifications taken together whether the same may or may not be particularly shown or

Described therein provided that the same can be reasonably be inferred there from, and if the contractor finds any discrepancy in the drawings or between the drawing, schedule of quantities and specifications he shall immediately and in writing refer the same to IGRUA who shall decide which is to be followed.

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### **B4.2. INJURY TO PERSONS AND DAMAGE TO PROPERTY –**

1. The contractor shall be liable for and shall indemnify the owner against any liability, loss claim or proceeding whatsoever arising under any statute or at common law in respect of personal injury to or death of any person.

2. Whomsoever arising out of or in the course of or caused by the carrying out of the works.

3. The contractor shall be liable for and shall indemnify the owner against any expense, liability, loss claim or proceeding in respect of any damage whatsoever to any property real or personal in so far as such injury or damage arises out of or in the course of or by reason of carrying out of the works, and provided always that the same is due to any negligence, omission or default of the contractor, his servants or agents or of any subcontractor, his servant or agent.

### **B 4.3. LABOUR**

The contractor shall employ no child labour under 14 years of age on the work. If female labour is engaged the contractor shall make necessary provision for safeguarding small children and keeping them clear of the site operations. No labourers shall reside within the compound except authorized guards.

### **B 4.4. ASSIGNMENT OR SUB-LETTING**

The contractor shall not without written consent of IGRUA assign this contract, and shall not without written consent of IGRUA (which consent shall not be unreasonably withheld to the prejudice of the contractor) sublet any portion of the work.

## **C. PRELIMANARIES TO COMMENCEMENT**

### **C.1 GENERAL**

The statutory requirements deal with

1. Labour
2. Registration

The details of the same are given below. The contractor shall attend to them and intimate IGRUA/ Owner accordingly.

Apart from this he shall provide a General Indemnity Bond.  
the works.

### **C.2 STATUTORY OBLIGATIONS, NOTICES, FEES AND CHARGES**

The contractor shall comply with and give all notices required by any Government Authority, and the instrument, rule or order made under any act of Parliament or any regulation or Bye law of any local authority

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relating to the work or with those system the same is or will be connected. The Contractor before making any variations from the Contract drawings or Contract bills necessitated by such compliance shall give to IGRUA a written notice specifying and giving reasons for such variations and IGRUA may issue instructions in regard there to. If within 10 days of having given the said written notice the contractor does not receive any instruction regard to the matters therein specified, he shall proceed with the work confirming to the Act of Parliament, Instrument, rule order, Regulation or Bye Law in question and any variation thereby necessitated shall be deemed to be a variation required by IGRUA.

### **C.3 CONTRACTOR LIABLE FOR INJURY TO PERSONS AND DAMAGE TO PROPERTY**

1.

The contractor shall be responsible for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any nominated sub-contractor's employee whether such injury or damage arisen from carelessness, accident or any other cause whatever in any way connected with the carrying out of the Contract. This clause shall be held to include, inter-alia, any damage to buildings, whether immediate or adjacent or otherwise, and any damage to roads, streets, footpaths, bridges or ways as well as all damages caused to buildings and works forming the subject of this contract by frost or other inclemency of weather. The contractor shall indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage under any acts of government or otherwise and also in respect of any award of compensation or damages consequent upon such claims.

2. The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of Third party.

### **C.4 INSURANCE**

The contractor shall take out the following insurance policies to safeguard the owner from any claims and damages.

#### **a. INSURANCE AGAINST THIRD PARTY AND WORKERS COMPENSATION ACT:**

The contractor shall indemnify the employer against all claims which may be made against the Employer by any member of the public or other third party in respect of anything which may arise in respect of works or in consequence thereof and shall at his own expense arrange to effect and maintain, until the virtual completion of contract with and approved insurer a policy of insurance in the joint names of Employer and contractor against such risk and deposit such policy or policies with IGRUA from time to time during the currency of this contract. The contractor shall also similarly indemnify the employer against all claims which may be made upon the employer whether under workmen's

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compensation act or any other statute in force during the currency of this contract or Sub-contractor and shall at his own expenses effect and maintain, until the virtual completion of contract, with an approved insurer a policy of insurance in the joint names of the employer and contractor against such risks and deposit such policy or policies with IGRUA from time to time during the currency of the contract.

The Insurance policies above stated shall be taken for a minimum sum of Rs. 2000..with indemnity for any single accident.

### **b. INSURANCE OF THE WORKS:**

The contractor shall within 14 days from the date of commencement of the work insure the works at his cost and keep them insured until one month after the works are taken over by the Employer or three months after the date of Completion whichever is earlier, against loss or damage by fire and usual risks other than fire against which insurers generally provide cover in a "**CONTRACTOR'S ALL RISK POLICY**" with an insurer to be approved by IGRUAs, in the joint names of Employer and contractor (The name of the former being first placed in the policy) progressively for the full amount of the contract in three stages, beginning with 1/3 of the contract value and for any further sum as called upon to so by IGRUA with prior written consent of the employer, the premium of such further sum being allowed to the contractor as an authorized extra. Such policy shall cover the property of employer only and IGRUA's and surveyor's fees for assessing the claim and in connection with his service generally in reinstatement and shall not cover any property of the contractor or any sub contractor or employee. The contractor shall deposit the policy and receipts for the premiums paid with IGRUA within 21 days of the date of commencement of work unless otherwise instructed by IGRUA. In default of the contractor insuring as provided above, the employer or IGRUA, on his behalf may insure and may deduct the premiums paid from any money that may be due or that may become due to the contractor. The contractor shall as soon as the claim under the policy is settled , or the work reinstated by the insurer should they elect to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire or other such usual risk had not occurred and in all respects under the same conditions of the contract. The contractor in case of rebuilding or reinstatement after fire or other such usual risks shall be entitled to such extension of time for completion as IGRUA deems fit.

The policies referred above in clause (s) and (b) shall all be taken in the joint names of the employer and contractor the name of the former being placed first.

### **c. CONTRACTOR LIABLE FOR EVERYTHING WHICH MAY BE EXCLUDED FROM INSURANCE POLICIES :**

The contractor shall be responsible for everything which may be excluded from the insurance policy above referred to and also for all other damages to any property arising out of and incidental to

The negligence or defective carrying out of this contract. He shall also indemnify the employer in respect of any costs, charges or

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Expenses arising out of claim or proceedings and also in respect of award of compensation for damage arising there from.

### **d. EMPLOYER TO RECOVER THE COST OF ANY DAMAGE COMPENSATION CHARGES :**

The employer with the concurrence of IGRUA shall be at liberty and is hereby empowered to deduct the amount of any damage, compensation, costs, charges and expense arising or accruing from or in any respect of any such claims or damage from any or all sums due or to become due to the contractor.

## **D. EXECUTION**

### **D1. CONTRACTOR TO COMPLETE THE WORK IN ALL RESPECTS.**

The contractor shall carry out and complete the said work in every respect in accordance with this contract and with the discretions of and to the satisfaction of IGRUA. IGRUA may in his absolute discretion and from time to time issue further drawings and / or written instructions, details, directions and explanations which are her after collectively referred to as "IGRUAs Instructions" in regard to:

- a) The variation and modification of the design, quality or quantity of works or the addition or omission or substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of quantities and / or drawings and / or specification.
- c) The removal from the site of any materials brought thereon by the contractor and the substitution of any material therefore.
- d) The removal and / or re- execution of any works executed by the contractor.
- e) Dismissal from the works of any persons employed there upon.
- f) The opening up for inspection of any work covered up.
- g) The amending and making good of any defects.

The contractor shall forth with comply with and duly execute any work comprised in such IGRUA's instruction.

### **D2 Watchman.**

The contractor shall make his own security arrangements to guard the site and premises at all the time, at his own expense. The security arrangements shall be adequate to maintain strict control on the movement of material and labour. The contractor shall extend the security arrangements to guard the material stored and / or fixed on the premises by the sub-contractors.

### **D3. Storage of Materials.**

The contractor shall provide, erect and maintain proper sheds for the storage and protection of materials etc., and also for the execution of work which may be prepared on the site.

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**D4 Sanitary Convenience.**

The contractor shall provide and erect all necessary sanitary convenience for the site staff and workmen, maintain in a clear orderly condition and clean and deodorize the ground after removal.

**E. ADMINISTRATION**

**E1. GENERAL.**

By the power vested in it IGRUA shall administer the contract of the work. It shall be assisted in his work by his team and Resident Engineer (clerk of works) Management meetings will be held from time to time to facilitate the task of monitoring the work.

**E.2 POSTPONEMENT OF WORK**

IGRUA may issue instructions in regard to the postponement of any work to execute under the provisions of this contract which will be a compensations event of time.

**E.3. INTENDED DATE OF COMPLETION :**

Intended date of completion is the date by which the contractor is supposed to virtually complete the works.

**E.4. VIRTUAL COMPLETION :**

The whole of the work will be thoroughly inspected by the contractor and all deficiencies and defects put right. On completion of such inspection the contractor shall inform IGRUA in writing that he has finished the work and that it is ready for IGRUA's inspection.

IGRUA will fix a day on which inspection of the work done shall take place.

If after the inspection it appears that the work has been executed according to the conditions of contract the virtual completion certificate will be issued.

If it appears from the inspection that the work has not been executed in perfect way and according to the conditions of contract the contractor shall be asked to rectify the defects that are found in the work. The contractor shall rectify the defects and intimate IGRUA of the same. The inspection will be repeated until it is found that the works are completed in compliance with the contract.

The works shall not be considered completed until IGRUA has certified in writing that it is virtually completed. The defects liability period shall start from the date of such certificate for duration of 12 months.

Within three weeks after virtual completion of the work the site shall be cleared and will be handed over to the owner in ship accidents and damages which might occur on the site.

**E.5. DAMAGES FOR NON COMPLETION – LIQUIDATED DAMAGES**

If the contractor fails to complete the works by the date specified in these conditions or within any extended time fixed under these conditions and IGRUA certifies in writing that in his opinion the same ought reasonably so to have been completed, the contractor shall pay or allow to owner a sum calculated at the rate stated in Appendix as agreed Liquidated Damages for the period during which the said work shall so remain or have remained incomplete, the owner may deduct such damages from any amounts otherwise payable to the contractor under this contract

**E.6. DEFECTS LIABILITY PERIOD :**

The defects liability period shall commence from the date of virtual completion, duration of which shall be 12 months.  
Any defect shrinkage, settlement or other faults which may appear within this period arising in the opinion of IGRUA from materials and workmanship not accordance with the contract shall upon the directions in writing from IGRUA and within such reasonable period as shall be specified be amended and make good by the contractor at his own cost.  
In case of default the Owner / Employer may get the defects rectified from other agencies; all damages, loss and expenses, Incidental and consequent there from shall be recoverable from contractor.

**E.7. FINAL DELIVERY :**

After the defects liability period is over and all defects have been taken care of any the contractor and all obligations according to conditions of contract have been discharged by him final delivery will take place.

If not , it will be adjourned till such time that all above mentioned conditions are fulfilled.

**F. QUALITY CONTROL**

**F.1 GENERAL**

Quality of the work has a major role to play in the work as such the contractor shall use best possible material and workmanship in executing the work. Proper and timely supervision is the key to quality work as such the importance of intensive supervision should not be overlooked. Defective work and negligence towards quality of the work will invite severe measure and cut in the payments due.

**F.2. PROTECTION AND CLEANING :**

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

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The contractor shall properly clean the work as it progresses and shall remove all rubbish and debris from site from time to time as is necessary and directed. On completion the contractor shall ensure that the premises and / or site are cleaned, surplus materials debris, sheds etc., removed, areas under floors cleared of rubbish gutters and drains cleared, doors and sashes eased, locks and fastenings oiled, keys clearly labeled and handed to the clerk-of-works so that the whole is left fit for immediate occupation or use and to the satisfaction of IGRUA.

### **F.3. INSPECTIONS:**

All materials and workmanship shall be subject to inspection, examination and test by IGRUA at any and all times during manufacture and / or construction. IGRUA shall have the right to reject the defective material and workmanship or require its Correction. Rejected workmanship shall be satisfactorily replaced with proper material without additional charge therefore and the contractor shall promptly segregate and remove the rejected material from the works. If the contractor fails to proceed at once with replacement of rejected material and / or the correction of otherwise replace such materials and or correct such workmanship and charge the cost thereof to the contractor, or may terminate the right of the contractor to proceed further with the work.

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

### **F.4. DEFECTS:**

#### F.4.1.

The contractor shall make good at his own cost and to the satisfaction of IGRUA all defects, shrinkage or small faults arising in the opinion of IGRUA from work or materials not being in accordance with the drawings or specifications or schedule of quantities or the instructions of IGRUA, which may appear within "Defects liability period" referred to in the Appendix.

#### F.4.2.

Such defects, shrinkages shall upon directions in writing or IGRUA, and within such reasonable time as shall be specified therein be amended and made good by the contractor at his own cost unless IGRUA shall decide that he ought to be paid for such amending and making good and in case of default the owner may employ and pay other contractor to amend and make good such defects, shrinkage, settlements or other faults and all damages, loss and expense consequently thereon or incidental thereto shall be made good and borne by contractor and such damage, loss or expenses shall be recovered from him by owner or may be deducted by owner upon IGRUA's certificate in writing from any amount due or may become due to contractor a sum to be determined equivalent to the cost of amending such work and in the event of the Retention amount being insufficient recover the Balance from contractor together with any expenses the owner may have incurred in connection therewith.

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**G1. GUARANTEE:**

Besides guarantees required elsewhere, the contractor shall guarantee the work in general for one year.

All required guarantees shall be submitted to IGRUA by the contractor when requesting certification of accounts for payment by the owner.

**H.1. PRICING OF VARIATIONS – EXTRA ITEMS :**

The contractor may when directed in writing by IGRUA with the approval of owner, add to, omit from or vary the work shown upon the drawing, or described in the specifications or included in the Schedule of quantities. The pricing of such extra work shall be worked out in accordance with following provisions.

- a. If the work in variation corresponds with an item described in the bill of quantities and if in the opinion of IGRUA / Engineer the cost per unit of the variation does call for change in the rates, the rate in the bill of quantities of similar item will be taken for calculating the value of variation.
- b. If the nature of work in the variation does not correspond to the items in the Bill of quantities and the cost per unit changes then the contractor shall submit a quotation in the form of new rates for the particular item giving detailed breakdown of the rates derived at (limiting his overheads & profits to 17.5%) to IGRUA / engineer for his approval. The rates finalized by IGRUA / Engineer are final and binding.
- c. Where extra work cannot be properly measured or valued the contractor shall be allowed day work prices as the net rates stated in Tender of the priced schedule of quantities or , if not so stated, then in accordance with the local day work.
- d. Rates and wages for the district; that in either case vouchers specifying the daily time (and required by IGRUA. Workmen's names) and materials employed be delivered for verification to IGRUA or his representative at or before the end of the week following that in which the work has been executed.

**I.1 TERMINATION OF CONTRACT BY THE EMPLOYER**

If the contractor being an individual or a firm commits any "Act of insolvency", or shall be adjudged an insolvent or being an incorporated

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company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to supervision of the court and the official assignee or the Liquidator in such acts of insolvency or winding up, as the case may be, and is unable with seven days after notice to him requiring him to do so, to show to the reasonable satisfaction of IGRUA that he is able to carry out and fulfill the contract and to give security therefore, if so required by IGRUA.

Or if the contract(whether an individual, firm or incorporated company) shall suffer execution or other processes of court attaching property to be issued against the contractor, or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the contractor, or shall assign or sublet this contract without the consent in writing of the employer first hand and obtained, or shall charge or encumber this contract or any payments due or which may become due to the contractor hereunder, or if IGRUA shall certify in writing to the employer that the contractor.

- i) Has abandoned the contract, or
- ii) Has failed to commence works, or has without any lawful excuse under those conditions suspended the progress of works for 14 days after receiving IGRUA's notice.
- iii) Has failed to proceed with the works with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- iv) Has failed to remove materials from site or to pull down and replace work for 7 days after receiving from IGRUA written notice that the said materials or work were condemned and rejected by IGRUA under these conditions, or
- v) Has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this contract to be observed or performed by the contractor for 7 days after written notice shall have been given to the contractor requiring the contractor to observe or perform the same.

Then and in any of the said cases the employer may, notwithstanding any previous waiver, after giving, 7 days notice in writing to the contractor, determine the contract but without thereby affecting the powers of IGRUA or the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the works, subsequently executed had been executed by or on behalf of the contractor. And further, the employer by his agents or servants may enter upon or take possession of the works and all plant, tools, scaffoldings, sheds, machinery steam and other power utensils and material lying upon the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the works or by employing any other contractor or other person or persons to complete the works, and the contractor shall not in any way interrupt or do any act or matter or thing, to prevent or hinder such other contractor or other person or persons employed for completing and finishing or using the materials or plants for the works. When the works will be completed or as soon as thereafter as convenient, IGRUA shall give notice in writing to the contractor to remove his surplus material and plant, and should the contractor fail to do so within a period of 14 days

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after receipt thereof by him, the employer may sale the same by public auction, and give credit to the contractor by for the net amount realized. IGRUA shall thereafter ascertain and certify in writing under his hand what ( if anything) shall be due or payable to, or by the employer, for the value of the said plant and materials so taken possession of by the employer and the expense or the loss which the employer shall have been put to in procuring the works to be completed and the amount which shall be so certified shall thereupon be paid by the employer, as the case may be, and the certificate of IGRUA shall be final and conclusive between the parties.

#### **I.2 TERMINATION OF CONTRACT BY CONTRACTOR**

If the payment of the amount payable by the employer under certificate of IGRUA shall be in arrears and unpaid for 30 days after notice in writing requiring payment of the amount as aforesaid shall have been given by the contractor to the employer, or if the employer interferes with or obstructs the issue of any such certificate, or if the employer shall repudiate the contract, or if the works be stopped for 3 months under the order of any court of law, then and in any of the said cases the contractor shall be at liberty to determine the contract by notice in writing to the employer, through IGRUA, and he shall be entitled to recover from the employer, payment for all works executed and for any loss he may sustain upon any plant or materials supplied or purchased or prepared for the purpose of the contract.

In arriving at the amount of such payment the net rates contained in the contractor's original tender shall be followed.

## **J .ARBITRATION**

#### **J.1 EXCEPTED MATTERS TO BE FINALLY DETERMINED BY IGRUA**

The decision, opinion, direction and certification of IGRUA (except for payment) with respect to the following matters shall be final and conclusive and binding on both the parties and shall be without appeal.

1. IGRUA's instructions
2. Contractor's field organization.
3. Assignment & Subletting
4. Sub-Contractors
5. Materials & Workmanship
6. Extension
7. Termination of contract by the owner
8. Dismissal of workmen
9. Removal of inferior work
10. Pricing of variations
11. Certification of virtual and final completion.

The above matters shall be referred as Exception Matters. Any decision, opinion, direction, certification or valuation of IGRUA on the matters other than excepted matters or his refusal to give any of the same shall be subject to any right of Arbitration and review in the same way in all

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respect (including the provisions as to opening the reference) as if it were a decision of IGRUA under the following cause.

#### **J.2 SETTLEMENTS OF DISPUTES BY ARBITRATION**

All disputes and differences of any kind whatever arising out of or in connection with the contract or carrying out of the works (whether during the progress of the works or after their completion and whether before or after the determination, abandonment or breach of the Contract) shall be referred to and settled by IGRUA who shall state his decision in writing. Such decision may be in the form of a Final Certificate or otherwise. The decision of IGRUA with respect to any of the matters shall be final and without appeal. But if either the employer or the contractor be dissatisfied with the decision of IGRUA on a matter, question or dispute of any kind (except any of the excepted matters) or as to withholding by IGRUA of any certificate to which the contractor may claim to be entitled, then and in any such case either party (the employer or the contractor) may within 28 days after receiving notice of such decision give a written notice to the other party through IGRUA requiring the matters which are in dispute or difference of which such written notice has been and no other shall be and is hereby referred to the arbitration and final decision of an arbitrator to be agreed upon and appointed by both the parties or, in case of disagreement as to the appointment of single arbitrator, to the appointment of two arbitrators, one to be appointed by each party, which arbitrators shall before taking upon themselves the burden of reference, appoint as "Umpire".

The arbitrator or arbitrators, as the case may be, shall have power to open up, review and revise any certificate, opinion, decision, requisition or notice, save in regard to the excepted matters referred to, and to determine all matters in dispute which shall be submitted to arbitration and of which notice shall be aforesaid.

The arbitrator or arbitrators, as the case may be, shall make his or their award within one year (or such further extended time as may be decided by him or them as the case may be with the consent of the parties) from the date of entering on the reference. In case during the arbitration proceedings the parties mutually settle, compromise or compound their dispute or difference, the reference to the arbitration and appointment of the arbitrator or the arbitrators, as the case may be, shall be deemed to have been revoked and the arbitration proceedings shall stand withdrawn or terminated, with effect from the date on which the parties file a joint memorandum of settlement thereof, with the arbitrator or arbitrators as the case may be.

Upon every or any such reference, the cost of and incidental to the reference and Award respectively shall be in discretion of the Arbitrator or arbitrators, as the case may be, who may determine the amount thereof, or direct the same to be taxed as between Attorney and client or as between party and party, and shall direct by whom and to whom and in what matter the same shall be borne and paid. This submission shall be deemed to be a submission to arbitration within the meaning of Indian Arbitration Act, 1940 or any statutory modification thereof. The award of the arbitrator or arbitrators, as the case may be shall be final and binding

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on parties. It is agreed that the contractor shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence and shall, until the decision of the arbitrator or arbitrators as the case may, shall relieve the contractor of his obligations to the actual carrying out of the works. The employer and contractor hereby also agree that arbitration under this clause shall be a condition precedent to any right of action under contract.

## **SECTION-III**

# **SPECIFICATIONS, PREAMBLES, MODE OF MEASUREMENTS AND PAYMENT**

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**FREE MAINTENANCE GUARANTEE- WATERPROOFING WORK**

After completion of the work and before ..... day of the month of ..... if at any time or times the roofs, mores, toilets, water tanks and any other portion thus treated by M/s .....(hereinafter called "the contractors") starts leaking or in any way give way to the influence of water including forming wet patches dampens etc. due to inadequacy of the work carried out or due to any other reason whatsoever relating to the specification workmanship etc. Including the responsibility for any surface treatment and plumbing etc. work carried out by other agencies the congregator should without any cost to the owner or to the occupants carry out necessary remedial measures to such extent and so often as may be necessary to free the said premises from leakage etc., the question of whether there is any leakage or the treatment has given way to water or moisture after the completion of the treatment a foreside and before.....19, shall be decided by IGRUA and the decision of IGRUA in this regard shall be final and binding on the contractors. The contractor shall reinstate the surface to its original condition after carrying out the rectification work if necessary by bringing new materials at no extra cost to the owner.

Signature of owner  
Place:  
Date:

Signature of Contractor  
place:

## **IGRUA RENOVATION**

RENOVATION OF TYPE D-I RESIDENTIAL QUARTER.

### **SPECIFICATIONS: CIVIL WORK**

Unless otherwise mentioned all materials, workmanship and the resultant work or product shall meet with the requirements of the relevant Indian standard specifications the said Indian standard specifications in part or whole shall form part of this contract.

Where the IS specifications do not provide standards for the materials workmanship and resultant work or product the relevant C.P.W.D. Standard specifications shall form part of this contract and shall be strictly adhered to.

The contractor shall familiarize himself with all the relevant IS specifications and C.P.W.D. Standard specifications.

**IGRUA RENOVATION**

RENOVATION OF TYPE D-I RESIDENTIAL QUARTER.

**LIST OF MATERIALS OF APPROVED BRANDS/ MANUFACTURES**

1	Construction chemicals: a) For concrete b) For flooring c) For waterproofing	ICO, Fosroc, MC- Bauchemie ICO, Fosroc, MC- Bauchemie ICO, Fosroc, MC- Bauchemie
2	Ceramic Tiles	Kajaria, Nitco
3	Glazed Tiles.	H.R. johnson, Somani-Pilkington Kajaria, Nitco
4	Flush Door Shutters	Tower, Anchor, Swastik
5	Rolling Shutters	
6	Aluminum doors/windows.	Alumilite, Ajit India, Dumal Jindal.
	Water Supply installations.	Essco, Jaquar, Plumber.
7	Sanitary Installations	Parry, Hindustan
8	Cast Iron pipes:	H.E.P. , Neco
9	GI water Pipes	Tata, Zenith
10	Paints	Jenson Nicholson, ICI, Asian Paints, Burger Paints, Snowcem.
11	Sealants	Dow Corning, Pidilite, GE, ICO.
12	Concrete covers for Manholes(Heavy)	Pratibha.
13	Glass	Modifloat, Tata Asai, Saint Gobain.
14	Cement Admixtures	Pidilite, ICO.

NOTE:in case equivalent materials and any other Goods are proposed to be used due to non-availability of the above approve materials these should be got approved by IGRUAs.

**IGRUA RENOVATION**

RENOVATION OF TYPE D-I RESIDENTIAL QUARTER.

**APPENDEX-III****CONSTANTS FOR CALCULATING CEMENT CONSUMPTION IN RESPECTIVE ITEMS**

	ITEM	BAGS	PER
B)	CONCRETE: Nominal Mix: 1:5:10 1:4:8 1:3:6 1:2:4	2.80 3.40 4.45 6.35	Cu.m. Cu.m. Cu.m. Cu.m.
	Controlled concrete Mix/ Design Mix: M-150Mix M200Mix	5.70 6.60	Cu.m. Cu.m.
	(*or as per mix design whichever is applicable)		
	M-250 mix M-300 mix	7.50 8.90	Cu.m. Cu.m.
C)	MASONARY:		
	U.C.R. Masonry in 1:6 cement mortar	1.77	Cu.m.
	Brickwork 230 mm thk. And above in 1:6 cement mortar.	1.25	Cu.m.
	Brickwork 100 mm thk. In 1:4 cement mortars with RCC band 75 mm thk. At every 1.0 m height.	0.25	Sq.m.
	Hollow concrete block walls in 1:6 cement mortar.		
	200 mm thick 150 mm thick	0.13 0.10	Sq.m. Sq.m.
	Solid concrete block walls in 1:6 cement mortar.		
	200 mm thick 150 mm thick	0.13 0.10	Sq.m. Sq.m.
D)	PLASTER ETC.		
	Plaster in 1:4 cement mortar	0.16	Sq.m.
	Sand faced plaster in two coats, 1 <sup>st</sup> coat in 1:4,cement. Mortar, 2 <sup>nd</sup> , coat in 1:3 cement Mortar.	- .29	Sq.m.
	Sand faced plaster, single coat in 1:4 cement mortars.	0.19	Sq.m.
	Pointing in UCR walls		
	In 1:2 cement mortar In 1:1 cement mortar	0.10 0.20	Sq.m. Sq.m.
	For making good chases in brick and block work for conduits, pipes etc., in 1:4 cement mortars.	0.05	RM
	Rough cast plaster	0.35	Sq.m.
E	FLOORING, DADO ETC		
	Concrete flooring in M-200 mix.	6.6	Cu.m.
	Kotah stone flooring		
	Machine cut	0.17	Sq.m.

## IGRUA RENOVATION

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	Hand cut	0.20	Sq.m.
	Kotah Stone		
	Skirting	0.26	Sq.m.
	Cells	0.26	Sq.m.
	Treads	0.26	Sq.m.
	Risers	0.26	Sq.m.
	Non- skid ceramic tile flooring	0.17	Sq.m.
	Glazed tiles dado including backing plaster	0.41	Sq.m.
	Checkered tiled flooring	0.10	Sq.m.
F	WATERPROOFING		
	Horizontal surfaces of terraces, water tanks, toilets etc.	0.48	Sq.m.
	Vertical surfaces of terraces, water tanks, toilets etc.	0.24	Sq.m.
	Horizontal surfaces of thin roof slabs.	0.38	Sq.m.
	Fixing pipes	0.02	NO
G	DOORS & WINDOWS		
	Wooden Doors	0.07	Sq.m.
	Steel Windows	0.03	Sq.m.
	M.S. Doors	0.13	Sq.m.
	Rolling shutters	0.03	Sq.m.
	Railings	0.06	Sq.m.
H	SANITARY INSTALLATIONS		
	Indian type WC	1.00	NO
	European type WC	0.10	NO
	Wash basins	0.10	NO
	Urinals	0.31	NO
	Nahani traps	0.01	RM
	Cast iron soil stacks, all diameters.		
I	DRAINAGE		
	Gully traps	2.00	NO
	Inspection chambers	3.50	NO
	450X600X750mm	4.20	No
	450X900X750mm		
	Extra for additional depth of 250 mm		
	450X600mm	0.45	NO
	450X900mm	0.55	NO
	Hume Pipes NP2		
	100mm dia	0.015	RM
	150mm dia	0.02	RM
	250mm dia	0.03	RM
	300mm dia	0.04	RM
	450mm dia	0.08	RM
	600mm dia	0.10	RM
	1000mm dia	0.20	RM
	S.W.G .Pipes		
	100mm dia	0.01	RM
	150 mm dia	0.02	RM

**IGRUA RENOVATION**  
 RENOVATION OF TYPE D-I RESIDENTIAL QUARTER.

**APPENDIX-IV**

**CEMENT CONSTANTS FOR MANUFACTURE OF CONCRETE BLOCKS**

A	Hollow concrete Blocks (Close cavity):		
	200x200x400mm	0.042	NO
	150x200x400mm	0.040	NO
	100x200x400mm	0.029	NO
B	Solid Concrete Blocks		
	200x200x400mm	0.045	NO
	150x200x400mm	0.043	NO
	100x200x400mm	0.035	NO
C	Hollow Concrete Blocks (For Slabs)		
	300x200x400mm	0.059	NO
	250x200x400mm	0.046	NO
	200x200x400mm	0.045	NO
	150x200x400mm	0.042	NO

**IGRUA RENOVATION**  
RENOVATION OF TYPE D-I RESIDENTIAL QUARTER.

**SECTION – IV**  
**BILL OF QUANTITY**