

TENDER ISSUED TO: M/S \_\_\_\_\_

DATE: \_\_\_\_\_

**LIAQUAT UNIVERSITY OF MEDICAL AND**  
**HEALTH SCIENCES**  
**JAMSHORO, SINDH**

**External Development Work for**  
**Establishment of Research Institute of**  
**Endocrinology and Diabetes at LUMHS,**  
**Jamshoro**

**TENDERDOCUMENTS**

1. NOTICE INVITING TENDER
2. SCOPE OF WORK
3. INSTRUCTION TO TENDERERS
4. SPECIAL CONDITIONS OF CONTRACT
5. SPECIAL STIPULATIONS
6. FORMS OF AGREEMENT / INTEGRITY  
PACT/PERFORMANCE BOND/MOBILIZATION  
ADVANCE
7. TECHNICAL SPECIFICATION
8. LIST OF SPECIFIED MATERIAL
9. BILL OF QUANTITIES
10. FORM OF TENDER



**PROJECT MANAGEMENT UNIT**  
**LUMHS, JAMSHORO**

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SECTION – 1

NOTICE INVITING TENDER



PROJECT MANAGEMENT UNIT

# LIAQUAT UNIVERSITY

OF MEDICAL & HEALTH SCIENCES, JAMSHORO, SINDH – PAKISTAN

URL: [www.lumhs.edu.pk](http://www.lumhs.edu.pk)

Tel: # 92-22-9213405

E-mail: [pmu@lumhs.edu.pk](mailto:pmu@lumhs.edu.pk)

Doc # LUMHS/PMU/

Issue Date:

## NOTICE INVITING TENDER

Liaquat University of Medical & Health Sciences Jamshoro, Sindh invites sealed Bids / Tenders from interested Bidders under SPPRA Rules 2010 for the following work:

S.No.	Name of Work	Estimated Cost (In Million)	Bid Security	Tender fee (Rs.)	Completion Period
1	External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro.	35.00 M	2% of Bid Amount	3000/=	02 Months

**Eligibility:** Valid Registration with Federal Board of Revenue (FBR) for Income Tax, registration with Sindh Revenue Board (SRB) and Pakistan Engineering Council in relevant C-6 & above category and CE 10 discipline.

**Qualification:**

- List of similar assignments along with cost undertaken over past 05 years and performance certificate issued by the procuring agency.
- Detail of office, equipment and machineries / transport owned / leased / hired by firm / bidders.
- Financial Statement and Income Tax Return for Last 03 years supported by audit reports.
- Registration with Income Tax Department (NTN Certificate) and Active Status with FBR.
- Registration Certificate of Sindh Revenue Board, Govt. of Sindh.
- Undertaking on Affidavit that the Firm is not involved in any litigation and black listed in any department.

**Method of Procurement:** (Single Stage – Two Envelope Procedure)

**Bidding / Tender Documents:**

**Issuance: Issuance:**

Complete set of Bidding Documents can be obtained on payment of a Tender Fee of Rs. 3000/= in the shape of Pay Order / Demand Draft (Non-Refundable) in favour of Vice Chancellor LUMHS, Jamshoro and can be downloaded from SPPRA's PPMS Website i.e. ([www.ppms.pprasinhd.gov.pk/ppms](http://www.ppms.pprasinhd.gov.pk/ppms)), LUMHS Website i.e. [www.lumhs.edu.pk/tender](http://www.lumhs.edu.pk/tender) on any working day from 27-05-2024 up to 10-06-2024.

**Submission:** Bids completed in all respects in sealed envelopes mentioning name of work and marked as “**Technical and Financial**” must be submitted on or before 11-06-2024 upto 11:00 a.m. and must be accompanied by a Bid Security 2% of Bid Price in the shape of Pay Order / Demand Draft in favour of Vice Chancellor LUMHS, Jamshoro.

**Opening:**

1. Technical Proposal will be opened on 11-06-2024 (Tuesday) at 11:30 a.m. in presence of Committee Members and representative of bidders who wish to attend, whereas the Financial Proposal will be retained with the Tender Opening Committee.

2. The Technical Proposals submitted by the Bidders will be evaluated by Tender Opening Committee and thereafter Financial Proposals of only technically qualified bidders will be opened by the committee on the date and time to be communicated to the bidders.
3. The Financial Proposals of the bids found technically disqualified shall be returned unopened to the respective bidders.
4. In case of unusual circumstances, Tender will be opened on next Working Day at the same time.

**Un-responded Tenders** will be again issued / submitted / opened on following dates: -

2 <sup>nd</sup> Attempt:	(a) Issue date:	(b) Submission date:	Opening date:
	12-06-2024	01-07-2024 upto 11:00 a.m.	01-07-2024 at 11:30 a.m.

**Place of Issuance, Submission, Inquiries & Opening:** Office of the Project Management Unit (PMU), 2nd Floor, Institute of Dentistry, Liaquat University of Medical & Health Sciences (LUMHS), Jamshoro, Sindh.

**Telephone Numbers:** 92-22-9213405

**Email Address:** pmu@lumhs.edu.pk

**Terms & Conditions:** Under the following conditions, bid will be rejected:

- i. Conditional and Telegraphic Bids / Tenders.
- ii. Bids not accompanied by Bid Security of required amount and form.
- iii. Bids received after specified Date and Time.
- iv. Bids submitted by Black Listed Firms.
- v. Incomplete Bids as per instructions given in Bidding Documents.

**Bid validity period:** Ninety (90) days.

Procuring Agency reserves the right to reject any or all bids subject to the relevant provisions of Sindh Public Procurement rules (Amended upto date).

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**DIRECTOR**  
Works & Services  
LUMHS, Jamshor

## **CRITERIA OF QUANTIFICATION / QUALIFICATION**

**(a). The following documents should be attached with the Technical Proposal.**

- i) Name of Firm, Postal Address, Telephone, Fax Number, E-mail Address and Organization Chart.
- ii) Year of Establishment of firm.
- iii) Copy of valid PEC Contractor's License in category C-6 and discipline, CE-10, (Mandatory).
- iv) Copy of NTN Certificate(Mandatory).
- v) Certificate of satisfactory completion of works by the clients as per sppra rules
- vi) List of Key Permanent Technical Staff Members along with their latest affidavit on judicial stamp paper of Rs.100/-that they are working with the applicant.
- vii) List of works completed in last five years with name and telephone No. of the clients and value of project.
- viii) List of work in hand.
- ix) Affidavit on Rs.100/- Non Judicial Stamp Paper declaring that the firm has never been Blacklisted by any Govt./Semi Govt. Autonomous body or organization and it does not have any litigation history with any Department. (Mandatory).
- x) List of Equipment/Plants available with the firms which can be verified.
- xi) Audit financial statement last 03 years
- xii) Bank Statement of last 03 years.
- xiii) Income Tax Return for last 03years.

**(b). Scope of Contract.**

The Scope of Contract includes but not limited to the following:

- a. Construction of civil & External Development Works, etc.
- b. Finishing works / paver flooring

- Note:**
- 1). Verification of the information provided by the applicants in the submissions for shortlisting may be made. In case the information is found to be wrong or incorrect in any material way or the applicant is found to be lacking in the capability or resources to successfully perform the contract, the application shall not have been retrained.
  - 2). The document not containing Mandatory's will not be entertained.

**(c). Criteria for quantification & qualification**

<b>(a).</b>	<b>Year of Establishment of the firm</b>	<b>(Maximum 5 Points)</b>
(i)	Above 10 years	5 Points
(ii)	Above 5 years	3 Points
(iii)	Above 3 years	2 Point
<b>(b).</b>	PEC Registration C-6 (CE-10)	Mandatory
<b>(c).</b>	NTN Registration, SRB Registration	Mandatory
<b>(d).</b>	Certificate of completion of works (civil works) with cost undertaken. (attach completion certificates) as per sppra rules	5 Point per Certificate (Max 25 Points).
<b>(e).</b>	Works in hand (civil works). Provide Documentary Evidence (work orders with cost) as per sppra rules.	5 Point for each work order (Max 15 Points).
<b>(f).</b>	List of permanent technical Staff (a). Masters 3 Marks for each Engineer holding Master's Degree (b). Graduate 2 Marks for each Engineer holding Graduation Degree (c). Diploma Holder 1 Marks for each person having relevant certificate	Max 15 Points
<b>(g).</b>	Affidavit on Rs.100/- stamp paper declaring that the firm has never been black listed.	Mandatory
<b>(h).</b>	List of equipment & plant on Rs 100/- Affidavit	(Max 15 Points)
(i).	Mixtures Machine	2 Points
(ii).	Compactor machine	2 Points
(iii).	Vibrators	2 Point
(iv).	Tractor with Trolley	2 Point
(v).	Leveling instrument/Theodolite	1 Point
(vi).	Steel welding plant	1 Point
(viii)	Shuttering (min. shuttering owned by contractor must Be 5000 sft including its vertical props)	5 Points
<b>(i).</b>	<b>Average Annual Turnover of last 03 years from Audit Reports.</b> (i). Above Rs.12 million (ii). From Rs. 9 to Rs. 11 million (iii). From Rs. 4 to Rs. 8 million (iv). From Rs. 1 to Rs.4 million (v). upto Rs.1 million	(Max 15 Points) 15 Points 12 Points 10 Points 8 Points 6 Points
<b>(j).</b>	<b>Bank Statements of last 03 years.</b>	1 Points for each year (Max 5 Points)
<b>(k).</b>	<b>Income Tax Returns (Last 03 Years).</b>	1 Points for each year (Max 5 Points)
		100 Points

**Qualifying Score: 70 Points**

For Category C-6(CE-10) and above

**Signature with Official Seal**

SECTION – 2

SCOPE OF WORK



# SCOPE OF WORK

*Liaquat University of Medical and Health Sciences, Jamshoro, Sindh* intends to “**External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro**” in accordance with the drawings and specifications appended here to.

The scope of contract for this bid shall be limited to Civil, Plumbing works.

The Owner may increase or decrease the quantum of Work given in BOQ at his sole discretion at the rates quoted here in and no such increase or decrease shall give rise to any claim or compensation in this account.

The scope of work given in Contract Document includes items based on unit rates as indicated in schedule of rates, Govt. of Sindh (2012) for which Specifications of standing rates committee Govt. of Sindh be followed. (If Specification of any item is not indicated in Technical Specification of Tender Document) and / or items based on market rates for which Technical Specifications are given in the nomen cloture and insection “Technical Specification”

The Contractor will be responsible for properly placing the location of the building as per Contour Plan and fix the plinth level in conjunction with the Bench Mark available at site as per the drawings provided by the Consultants and get it verified from them before taking up the works.

SECTION – 3

INSTRUCTIONS TO TENDERERS

# INSTRUCTIONS TO TENDERERS

## 1. GENERAL

- 1.1 THE DIRECTOR WORKS & SERVICES, LUMHS, JAMSHORO, SINDH (here in after referred to as the "OWNER") through their Consultants viz YOUNG ASSOCIATES here in after referred to as "CONSULTANTS" invites from Contractors to submit tender for "External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro" as described in the scope of work in accordance with specifications and drawing requirements.
- 1.2 Tenders shall be prepared and submitted to the OWNER strictly in accordance with the instructions set forth herein.
- 1.3 All entries in the tender rare to be in ENGLISH LANGUAGE, Corrections, overwriting etc., shall be signed by the authorized persons.

## 2. TENDER DOCUMENTS

The list of document indicated in the Form of Agreement shall form integral part of the agreement subsequently.

## 3. INSPECTION OF SITE AND LOCATIONS

- 3.1. The Tenderer shall inspect the site of work and surroundings and shall satisfy themselves before submitting their Tenders as to the qualities and nature of the work, the requirements and availability of man power, labour, materials, water, electricity and roads, the means and access to the site. The tendered rates shall be considered to include all these factors as well as any, or all other factors which may influence the cost of construction.
- 3.2. The rates shall include the cost of all material, but in case, owner agrees to supply any or all the building materials to the Contractor, the deduction for the cost of these materials shall be made from the bills (Interim or final as the case may be) of the Contractor.

## 4. SUFFICIENCY OF TENDER

- 4.1. Each tenderer shall be deemed to have fully satisfied himself before submitting the Tender as to the Correctness and sufficiency of his Tender and of the rates and prices stated in the Bill of Quantities which rates and prices shall, except in so far as it is otherwise expressly provided in the Conditions of contract, must cover all his obligations under the Contract and all matters and things necessary for the proper completion of Project.
- 4.2. No tenderer shall have any right to make any objection, excuse or claim about correctness and sufficiency of his Tender after acceptance of his Tender by the OWNER.

5. VERBAL INSTRUCTIONS BEING IGNORED

The Owner shall not assume any responsibility for information, interpretation and deductions the Tenders may make from the data furnished by the Owner or the Consultants. No verbal understanding, agreement or conversation with any officer, employee or agent of the Owner or the Consultants, either before, during or after the execution of the Contract, shall affect or modify any of the terms or obligations contained in the Tender Documents.

6. EXPLANATION OF DOCUMENTS

Any tenderer who may have any doubt or question as to the true meaning of any part of the Tender Documents should deliver to the OWNER or the CONSULTANTS a written request for a clarification or answer thereof, prior to two days of the date set for opening of the Tender. Any explanations, revisions, additions or deletions to the tender documents will be made only by formal addendum, duly signed and issued with prior approval of OWNER and mailed or delivered to each tenderer who has received a set of Tender Documents. Such addendum will be co mean integral part of the Tender Documents and receipt thereof must be acknowledged by return of on the form issued with the addendum. Each addendum shall be signed by the Tenderers. The OWNER shall neither be responsible nor bound by any explanations, revisions, additions or deletions to the Tender Documents except those contained in the formal Addendum signed and issued by the OWNER or the CONSULTANTS.

7. DRAWINGS

The drawings showing the proposed work are also being issued with the Tender. The OWNER / CONSULTANT, however, reserves the right to make any addition, alteration or modification and / or deletion in these drawings, specifications and / or BOQ (Scope of work) at any time in the best interest of the work.

8. COST OF TENDERING

Tender shall have no claim for reimbursement of any expenses of any kind what so ever incurred in connection with preparation and submission of their tenders.

9. INCOMPLETE TENDERS

Incomplete Tenders shall be liable for rejection by the Owner.

10. SUPPLY OF MATERIALS, WATER AND ELECTRICITY

- a). No materials of any kind what so ever required for execution of the work shall be supplied or arranged by the OWNER. It shall be the responsibility of the Tenderer to procure all materials required for timely completion of the work.
- b). The Contractor should make his own arrangements for water and electricity.
- c). If available electric supply and water may be supplied by the Owners, the some may be shared with the contractor @0.25% for electric supply of the contract amount and 2 % for water supply service of the contract amount.

11. EARNEST MONEY

- 11.1. The original Tender shall be accompanied by Earnest Money 2% as specified in NIT in the form of Pay Order / Demand Draft issued by a Schedule Bank of Pakistan in favor of Vice chancellor, *Liaquat University of Medical and Health Sciences, Jamshoro, Sindh*. The money will be adjusted in Performance Guarantee of the successful bidders.
- 11.2. The Earnest Money will be refunded to unsuccessful bidders within 30 days from the date of opening of tenders.

12. SUBMISSION OF TENDER

The Tender Document duly signed on each page, corrections and overwriting along with the Earnest Money for the tender shall be properly signed and sealed and clearly marked as Technical & Financial Proposal and delivered in person or by registered mail or through Courier Service to the following address.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PHONE: \_\_\_\_\_

so as to reach on or before the time and date given in the Notice of Tender at which time and place, they will be opened in the presence of such of the representatives of the Tenderers who may wish to be present. Only the name of the Tenderers and the Total quoted rates shall be announced by the OWNER at the time of opening of the Tender.

In case of any calculation errors detected during scrutiny of the Tenders, the unit RATE quoted by the Tender shall be taken as final and the tender value corrected accordingly.

13. AWARD OF CONTRACT

The OWNER does not bind himself to award the Contract to the lowest or to any other Tenderer but will take into consideration all aspects as redeemed relevant and applicable. Once the OWNER has arrived at the decision, he will issue a written letter of Award to the successful tenderer. Thereafter, the successful tenderer will be required to execute a formal agreement. Failure of the successful tenderer to sign the agreement within the prescribed time-schedule shall be a just cause for the annulment of the award of the contract and in the event of such annulment, the Earnest Money of the successful tenderer will be forfeited by and to the OWNER.

14. MOBILIZATION

If the tenderer to whom the Letter of Award is issued by the OWNER does not mobilize at the site of work within the stipulated time and take all appropriate steps to commence the work, the Earnest Money deposited by him along with his tender shall stand forfeited in favor of the OWNER as liquidated damages.

15. COMPLETION TIME AND COMPLETION CERTIFICATE.

- a). The work is to be substantially completed in all respects, in accordance with drawing and specifications, to the entire satisfaction of Engineer incharge within the period set forth in the Tender. Failure of the Tenderer to complete the whole of the work within the specified time, will result in imposition and recovery of liquidated damages under the conditions of contract. This shall include amount payable to the CONSULTANTS as their remuneration on account of supervision services to be rendered for the period beyond the agreed date of completion, which will be proportionate to the supervision charges divisible by the period of completion on monthly basis.
- b). When the work is completed in all respects and handed over to the OWNERS the Consultant will issue the certificate that the works are substantially completed and Defect Liability Period will commence with effect from the date of issue of such certificate and will indicate the terminal date of such period.

16. MAINTENANCE PERIOD

The maintenance period of the work shall be 365 days effective from the date of issue of completion certificate by the Consultants.

17. SPECIAL STIPULATIONS

In case of doubt Special Stipulations will take precedence overall other conditions in tender Documents.

SECTION – 4

SPECIAL CONDITIONS OF CONTRACT

# SPECIAL CONDITIONS OF CONTRACT

## 1. DEFINITIONS AND INTERPRETATIONS

### 1.1. Definitions

In the Contract (as hereinafter defined), the following words and expressions shall all have the meanings here in assigned to the unless the context otherwise requires:

- a) "OWNER" means the M/s LUMHS, Jamshoro, Sindh legal successors and assignees.
- b) "CONSULTANTS" means M/S YOUNG ASSOCIATES, 9-C, 24<sup>th</sup> Commercial Street, Phase-II (Ext), DHA, Karachi, appointed by the OWNER as CONSULTANTS for the purpose of Technical assistance for supervision and management of the "WORKS" herein after defined.
- c) "ENGINEER" means the person or agency for the time being or from time to time designated or appointed in writing by the Consultant to represent them and to perform the duties set-forthinArticle-4hereof.
- d) "ASSOCIATE" means a firm / company hired to work in the trades of Electrical Installations / Air-Conditioning Installations or any other special trade having valid P.E.C. License in relevant category and also valid license issued by Electrical Inspector or by any other license granting Agency for the respective trades.
- e) "WORKS" means "**External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro**", Sindh by virtue of the contract to be executed, whether temporary or permanent and whether original, altered, substituted or additional in accordance with the contract.
- f) "CONTRACTOR" means the person, firm or company whose Tender has been accepted by the OWNER and includes the contractor's representatives, successors and permitted assignees.
- g) "DRAWINGS" means the drawings showing the related details of architectural, structural, plumbing, electrical and mechanical services and other such works including the layout plans, elevations, sections, details, perspectives, sketches and other details and also the drawings referred to in the specifications and any modifications of such drawings approved in writing by OWNER / CONSULTANTS and such other drawings as may from time to time be furnished for approval in writing by the OWNER in Consultations with the CONSULTANTS.
- h) "SITE" means the land and other places on, under over, in or through the works are to be executed or carried out and any other lands or places provided by the owner for the purpose of the Contract together with such other places as may be specified in or pursuant to the contract as forming part of the site.



- i) "TENDER" means the offer tendered by the Contractor for the Works governed by the Contract.
- j) "SPECIFICATIONS" means directions, provisions and requirements contained in the drawings or in the nomenclature or descriptions given in the contract documents and / or the verbal instructions of the Consultants.
- k) "CONTRACT DOCUMENT" means and includes the Letter of Work Award, agreement, conditions of contracts, specifications, schedule of quantities, Tender Drawings, details, sketches Performance / Bank Guarantee, Insurance Policies and all other papers pertaining to the construction work of this project. It shall also include any and all supplementary documents which may be necessitated to complete the work as required by the Owner through Consultant.
- l) "APPROVED" means approved in writing by Owner through Consultants.

## 2. SINGULAR & PLURAL

Word supporting the singular include the plural and vice-versa.

## 3. EXECUTION OF WORK

All works to be executed under the Contract shall be executed under the overall direction and subject to the approval in all respect of the OWNER.

## 4. ENGINEER

### 4.1. Duties and Power of the Engineer

The duties and power of the Engineer are to watch and supervise the Works and to test and examine any materials to be used or workmanship employed in connection with the works. He shall have no authority to relieve the contractor of any of his duties or obligations under the contract nor to make any variation of or in the works nor except as expressly provided hereunder order any works involving delay or any extra payment by the OWNER. The OWNER may from time to time in writing delegate to the Engineer through Consultant any of the powers and authorities and shall furnish to the contractor a copy of all such written delegations of powers and authorities and also of any revocation thereof.

Any written instructions or written approval given by the Engineer to the contractor with in the terms of such delegations (but not otherwise) shall be in the contractor and the OWNER provided always as follows:

- i. Failure of the Engineer to disapprove any work or material shall not prejudice the power of the CONSULTANTS and the OWNER thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof.

- ii. If the Contractor shall be dis-satisfied by reason of any decision of the Engineer, he shall be entitled to refer the matter to the CONSULTANTS who shall there on confirm, reverse or vary such decision. The CONSULTANTS's decision in such as shall be final and binding upon the Contractor.
- iii. The fact that the CONSULTANTS or Engineer for whatever reasons, fail to detect defects in the layout or in the quality of the works executed shall not relieve the Contractor of his liability for rectifying the said defects in the layout or in the quality of the works at his own cost.

#### 4.2. Emergency Powers of the Engineer.

Notwithstanding the provisions of Sections 4.1 hereof, if in the opinion of the Engineer an emergency occurs affecting the safety of lift or of the works or adjoining property he may direct the Contractor in writing to carry out all such work or to do all such things as may be necessary in his opinion to abate or reduce the risk. The contractor shall for the with comply without appeal with any such direction of the Engineer.

### 5. CONTRACT DOCUMENTS

#### 5.1. Language

The language according to which the Contract is to be construed and interpreted shall be English.

#### 5.2. Documents Mutually Explanatory

The several documents forming Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the same shall be explained and adjusted by the Consultant, who shall there upon issue to the Contractor instructions directing in what manner the work is to be carried out. The provisions of special conditions of Contract shall prevail over the General Conditions of Contract and General Conditions over those of any other documents forming part of the Contract.

### 6. PERFORMANCE BOND

- a). The Contractor shall, within fourteen days after written Letter of Award has been issued by the Owner, provide a performance guarantee from a Scheduled Bank of Pakistan to be jointly and severally bound with the Contractor to the Owner for the due performance guarantee in the form appended to tender an amount equal to 2% (Two percent) of the Contract Price.
- b). The Performance Bond shall be valid till the completion and end of the period of Maintenance. The cost of the Bond so entered into shall be at the sole expense, of the Contractor.
- c). No RA Bill will be processed unless the Performance guarantee is submitted.

### 6.1. INSURANCE OF WORKS ETC.

The Contractor shall, insure in the joint names of the Owner and the Contractor, against all loss or damage from whatever cause arising for which he is responsible under the terms of the contract and in such manner that the Owner and Contractor are covered during the period of the commencement to the completion of the works and are also covered during the period of Maintenance for loss or damage arising from a cause occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations.

- i) The works and temporary works to the full value thereof executed from time to time.
- ii) The maintenance, constructional plant and other things brought on to the site by the Contractor for the purposes of the contract to the full value of such materials, constructional plant and other things.
  - a) Provided always that without limiting his obligations and responsibilities as aforesaid nothing in this clause contained shall render the Contractor liable to insure against the necessity for the repair or reconstruction of any work constructed with materials or workmanship not in accordance with the requirements of the Contract.
  - b) Such insurance shall be effected with an insurer and in terms approved by the Owner and the Contractor shall whenever have required produce to the Owner the original policy or policies of insurance and the receipt for payment of the correct premiums. The contract price shall be deemed to include in the Contractor's cost for the provision of such insurance.
  - c) All money received under any insurance mentioned in the Section shall be applied in or towards the cost of making good the loss or damage which has occurred but this provision shall not affect the contractor's liabilities under the contract.

### 6.2. DAMAGE TO PERSONS AND PROPERTY

The Contractor shall (except if and so far as the contract otherwise provides) indemnify and keep indemnified the Owner against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out, or in consequence, of the performance of the Contract and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the Owner against any compensation or damages for or with respect to:

- i) The permanent use or occupation of land by the work for any part thereof.
- ii) Surface or other damage (caused by tenants or occupiers) to land or plants within the site which land or plants will be disturbed or damaged as an unavoidable result of the execution of the works.

- iii) The right of the Owner to construct the work for any part thereof on, cover, under in or through any land.
- iv) Interference, whether temporary or permanent with any right of light, air, way, water or support or other easement or quasi easement which is the unavoidable result of the performance of the contract.

6.3. a) THIRD PARTY INSURANCE

Before commencing the execution of the works, the contractor shall, without limiting his obligations and responsibilities insure and, of the duration of the performance of the Contract, keep insured, in the joint names of the Owner and the Contractor against any damage, loss or injury which may occur to any property or to any person (including any employee of the Owner or Engineer or Consultants) by or arising out of the execution of the works or temporary works.

b) MINIMUM AMOUNT OF THIRD PARTY INSURANCE.

Such insurance shall be effected with an insurance company of AA rating and in terms approved by the Owner and for at least the amount stated in the Tender and the Contractor shall whenever have required produced the original policies of insurance and the original receipts for payment of the current premiums. The Contract prices shall be deemed to include the contractor's costs of premium and incidental to the provision of such insurance.

6.4. a) ACCIDENT OR INJURY TO WORKMEN

The Owner shall not be liable for or in respect of any damage or compensation payable in law in respect or in consequence of any accident or injury to any workman or other person in the employment of the Contractor or any of his sub-contractors and the Contractor shall indemnify and keep indemnified the Owner against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

b) INSURANCE AGAINST INJURY TOWORKMEN

The Contractor shall insure against any such liability with an insurer approved by the Owner and shall continue such insurance during the whole of the time that any persons that are employed by him on the works and shall when required produce to the Owner, in original, such policy of insurance and the receipt for payment of the current premium. Provided always that in respect of any persons employed by any of his sub-contractors, the Contractor's obligation to insure as aforesaid under this clause shall be satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that the Owner is indemnified under the policy but the Contractor shall require such sub-contractor to produce in the original to the Owner when required such policy of insurance and the receipt for payment of the correct premium. The contract price shall be deemed to include the costs of such insurance by the Contractor and his sub-contractors.

6.5. a) REMEDY ON CONTRACTOR'S FAILURE TO INSURE

If the Contractor fails to effect and keep in force the insurances or any other insurance which he may be required to effect under the terms of the contract or any applicable Laws/Bye-Laws, then in any case the Owner may (without prejudice to any other right or remedies) effect and keep in force such insurance and pay such premium or premiums as may be necessary for that purpose and from time to deduct the amount so paid by the Owner as aforesaid from any moneys due or which may become due to the Contractor or recover the same as adept due from the Contractor.

b) CONTRACTOR TO NOTIFY INSURERS

The Contractor shall notify the insurers of any of the insurance any matter or event which by the terms of such insurances are required to be so notified and the Contractor shall indemnify and keep indemnified the Owner against all losses, claims, demands, proceedings, costs, charges and expenses whatsoever arising out of or resulting from any default by the Contractor in employing with the requirements of this Section whether on account of the avoidance of any such insurance or otherwise.

7. DAMAGE TO PERSONS AND PROPERTY

The Contractor shall (except if and so far as the contract otherwise provides) indemnify and keep indemnified the Owner against all losses and claims for injuries or damage to any person or any property whatsoever which may arise out, or in consequence, of the performance of the Contract and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the Owner against any compensation or damages for or with respect to:

- i) The permanent use or occupation of land by the work for any part thereof.
- ii) Surface or other damage (caused by tenants or occupiers) to land or plants within the site which land or plants will be disturbed or damaged as an unavoidable result of the execution of the works.
- iii) The right of the Owner to construct the work for any part thereof on, cover, under, in or through any land.
- iv) Interference, whether temporary or permanent with any right of light, air, way, water or support or other easement or quasi easement which is the unavoidable result of the performance of the contract.

## 8. GENERAL OBLIGATIONS

### 8.1. Agreement

The Contractor shall, within fourteen days after the written Letter of Award has been issued to him by the OWNER, enter into and execute an Agreement (to be prepared at the cost of the Contractor) in the form appended to the Tender with such modifications as may be considered necessary by the OWNER.

### 8.2. Site Information

The Contractor shall be deemed to be in possession of all necessary information of the site and its surrounding, to have satisfied himself as to the nature of roads and as to possible interruptions there to and the access to and exist from the site, to have made inquiries as to the available accommodation for his staff and labor, to have made inquiries as to the sub soil water levels and the variations thereof, and drains, storms, prevailing winds, climatic conditions generally and other similar matters, to have satisfied himself as to the courses and means of obtaining adequate supplies of skilled and unskilled labor and also all materials required for the works and the transport thereof, to have considered the possibility of delays or inconvenience that maybe caused to his operations by any reasons of the breakdown of communications, storms, floods, adverse weather conditions to have acquainted himself as to his liability for payment of Government taxes another charges, to have examined the contract document generally to have obtained information on all matters whatsoever that might affect the carrying out of the works. The Contractor shall not be entitled to any claim if he fails to fulfill his obligation in acquiring the information before submitting his tender.

### 8.3. Works to be done to the satisfaction of the OWNER

The Contractor shall execute, complete and maintain the Works instruct accordance with the Contract to the satisfaction of the OWNER and the whole of the materials, plant, labor and other things to be provided by the Contractor in pursuant to the Contract and the mode, quality, manner and speed of execution and maintenance of the Works shall be of a kind conducted in a manner to the satisfaction of the OWNER and CONSULTANTS.

### 8.4. Compliance with CONSULTANT'S Instructions

The Contractor shall comply and adhere strictly to the CONSULTANT's instructions and directions (subject to the limitations referred to hereof) from the Resident Engineer on behalf of the OWNER regarding any matter (whether mentioned in the Contractor not) touching or concerning the Works.

8.5. a) Contractor's Agent

The Contractor shall with the approval of the CONSULTANTS (which approval may at any time be withdrawn) employ and arrange whole-time presence of a duly authorized agent or representative at the Site. The said agent or representative shall give his whole time superintendence to the Works and shall act in harmony with the CONSULTANTS and the OWNER. The said agent or representative shall not be removed by the Contractor from the Works or the Site without consent in writing of the CONSULTANTS.

b) Agent to Receive Instructions

The Agent and representative shall receive on behalf of the Contractor the instructions of the OWNER/CONSULTANTS or (subject to the limitations of Article 3,4, 5hereof) the Engineer.

8.6. Contractor's Employees

The Contractor shall employ in and about the execution and maintenance of the Works and provide at the Site:

- i. Only with technical assistants, foremen and leading hands as are careful, skilled and experienced in their respective trades and are competent to give proper supervision to the work they are required to supervise, and
- ii. Such skilled, semi-skilled and unskilled labor as necessary for the proper and timely performance of the Contract.

8.7. Assignment and Sub-Letting Assignment

The Contractor shall not assign the Contract or any part thereof or any benefit or interest there in or there under without the prior written consent of the Owner.

Subletting

The contractor shall not sub-let the whole of the works, except where otherwise provided by the Contract. The Contractor shall not sub-let any part of the works without the prior consent of the Owner and such consent if given not relieve the Contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any sub-contractor, his agents, servants or workman.

8.8. Security Deposit

- a). The Security Deposit of the contractor to be retained by the Owner shall be 6% of the total cost of the work carried out by the Contractor and it shall be deducted from each of the interim bill as well as from the final bill submitted by the Contractor and shall be retained by the Owner until the expiry of Defects liability period as guarantee of the good workmanship and good material used for the construction of project.
- b). 50% Amount of Security Deposit will be released after issuance of certificate of substantial completion of works by the Consultants.
- c). 50% Amount of Security Deposit will be released after completion of Defects Liability Period and after proper handing over by the Contractor and taking over by the Owner in writing.

9. MODE OF PAYMENTS

The Contractor shall submit 3 (three) copies of the Interim Bill accompanied by three copies of the details of measurement to the Consultants after completion of about one tenth (1/10<sup>th</sup>) portion of the total work. The Consultants shall scrutinize the same and issue to the Contractor the Certificate of payment on the basis of this scrutiny without prejudice to any of the rights of the Owner.

The payment made on the basis of interim bills shall be regarded as an advance against the total cost of work till the final bill is scrutinized and the cumulative amount paid by the Owner to the Contractor shall be adjusted against the overall amount of the final bill.

10. TIME ALLOWED FOR COMPLETION

The time allowed for completion and handing over the work complete in all respects to the Owner shall be as specified and shall be deemed to be effective from the date of Letter of Award. The contractors shall commence the work within 7 (seven) days of award of work. In case the contractor fails to commence the work within the stipulated time, the contract may be awarded to any other tenderer or party which in the opinion of the Consultants serves the best interest of the Owner. Earnest Money will be forfeited in favour of the OWNERS.

11. EXTENSION IN COMPLETION TIME

The Owner on the recommendations of Consultant reserves the right to refuse / grant reasonable extension incompletion time under special circumstances which the CONSULTANTS / OWNER deem to regard as beyond the control of the contractor, and the Contractor has within One month after such circumstances have arisen or as soon thereafter as is practicable, delivered to the consultants full and detailed particulars of any claim to extension of time to which he may consider himself entitled in order that such claim may be investigated at that time.

12. PENALTY

(a) Penalty to the client

The completion time stipulated is the essence of this contract and for each day for which the work remain sun-commenced or unfinished after the proper dates, the Contractor shall pay to the Owner a sum of Rs.0.05% (Point Zero Five Percent) of the contract value per day till such time the Project is completed in all respects and formally be handed over to the Owner, subject to a maximum of 10 % of the cost of the total works.

(b) This shall include penalty payable to consultant as per clause15 page 9 of Instruction to Tenderers.

13. CONSTRUCTION SCHEDULE

Within 10(ten) days of the Award of the work, the contractor shall submit the Consultants a detailed phasing of the Construction programme he proposes to adopt for completing the project within the stipulated period.



If the Consultants are not satisfied with this programme they may ask to revise the same to their satisfaction and the Contractor shall carry out the changes accordingly and will strictly adhere to this programme throughout the progress of the construction work. The Contractor will pay Rs.500/- (Rupees Five Hundred Only) per day for the delay beyond 15 days after the date of work order / Agreed Date of Commencement.

14. RIGHT TO ACCESS

The Owner and the Consultants reserve the right to enter upon the site at all times and the contractor or his representatives shall extend them all the cooperation for inspection of the quality and the progress of the Construction works.

15. REMOVAL OF EMPLOYEES WORKMEN AND FOREMEN.

The Owner / Consultant shall have full power at all times to object to the employment of any of the workmen, foremen or other employees on the works by the contractor and if the contractor shall receive a notice from the consultants, requiring the removal of any person or persons from the works, the contractor shall comply with the instruction forthwith. The Contractor shall not have been entitled to demand the reason from the consultants for such notice.

16. SETTING OUT

The Contractor shall be fully responsible for correctly setting out the work on the site as per dimensions indicated in the drawings and if any error is found at any stage of the work, the contractor shall rectify the same at his own risk and expense accordingly.

17. DISCREPANCY IN DRAWINGS

Only the written dimensions shall be followed for all the drawings and details. However, it will be the responsibility of the Contractor to study, check and tally the drawing/details issued to him by the consultants. Before proceeding with the construction, he shall be deemed to have thoroughly satisfied himself about the accuracy of all drawing / details. If any discrepancy is detected by him, he should immediately bring it to the notice of the consultants and get the same rectified before proceeding with the work or else the responsibility for the faulty construction shall rest with the contractor.

18. REPLACEMENT OF DEFECTIVE WORK

The Contractor shall be responsible for strictly observing his obligations as regards the correct interpretation of the drawings, details, specifications, schedule of quantities or any other relevant part of the contract documents. If during the progress of the work any defect is discovered either in the use of materials or the workmanship the contractor shall at once demolish such work on receiving instructions from the Owner, Agent or other accredited representative & replace the same as directed.

19. OWNER'S RIGHT TO IMPOSE PENALTY MEASURES

The Contractor shall strictly carry out the entire work according to the tender documents. However, at any stage of the execution of the work, if it is discovered that work carried out by the Contractor as regards the materials or the workmanship, or both, is not as per the drawings, details, specifications, and the instructions of the Owners agent, the Owner reserve the right to impose the lump-sum penalty on the contractor disown / order to dismantle, or to reduce the tendered rates of the contractor to commensurate with the actual quality of the work as carried out by the Contractor.

20. GUARANTEE FOR GOOD MATERIAL AND WORKMANSHIP

The Contractor shall execute a guarantee specimen draft valid for entire liability period after completion and handing over the works to the owner as regards the use of good construction materials and workmanship for the entire work, if any defect is discovered after completion within the said period, the Contractor shall replace the defective work at his own expenses. However, in the event of the failure on the part of the Contractor to rectify and replace the defective works, the Consultants may advise the owner to rectify the same at the expenses of the Contractor and to adjust such amount from his Security Deposit. In case the cost of replacement of defective works exceeds the amount of Security Deposit lying with the owner, the extra, expenditure so incurred shall be recovered from the Contractor.

21. CLERK OF WORK

The Owner may appoint the Site Engineer or site supervisor who may henceforth be referred to as the clerk of works, under the orders of the Owner and having the powers and authority so delegated to him by the Owner. The duties of the clerk of works shall be to inspect and supervise the works according to the specifications laid down by the Consultants. He shall have no power to relieve the Contractor of any obligation under the Contract or to make any variation order or to order any work involving delay or extra expenditure.

22. INTIMATIONS FOR INSPECTION

The Contractor shall inform the Owner when any parts of the work is ready for checking. No earth shall be backfilled until the Owner agent has inspected the foundations and plinth work. Any part of the work which shall not be visible in the subsequent stage of its completion shall be got inspected/ measured by the Consultants.

23. OBSERVANCE OF CONSULTANTS /OWNER INSTRUCTIONS

The Contractor shall abide by the instruction of the Consultants / Owner or their duly accredited engineer or representatives as regards the progress and quality of the Construction. No work shall be continued without the approval of the Consultants /Owners. No concrete shall be poured in R.C.C. structures unless the reinforcement is checked and approved by the Consultants/Site Engineer in writing (Pour Slip).

24. PROGRESS REPORT AND PHOTOGRAPHS

The Contractor shall regularly submit to the Consultants every week, the progress reports in quadruplicate so as to reach them in the first working day of every month. If the Owner find the progress slow as compared to the Construction schedule already submitted and approved, he may instruct the Contractor to increase the rate of progress and warn him about the possible enforcement of penalty clause and in that case the Owner shall take the necessary measures to accelerate the work. In the event of failure by the Contractor to comply with such instruction or such warnings, the penalty clause shall be strictly imposed upon the Contractor if the contractor falls behind the stipulated completion period. The report of every fourth week shall be fully supported with photographs of post card size depicting the completed stages of the work. No R.A Bill of Contractor shall be processed unless the photograph and monthly progress report are submitted on regular basis.

25. (A) MEETINGS ON PROGRESS OF WORK

The Contractor and his Agent shall attend any or all meetings when called by the Owner to discuss progress of the work and other matters related to the works and the contract.

(B) LIQUIDATED DAMAGES FOR DELAY.

Time shall be deemed to be the essence to the contract.

- a) It is agreed that the amounts specified hereinafter are reasonable compensation to the Owner without reference to the actual loss or damage sustained and whether or not any damage has or has not been sustained.
- b) If the work remains un-commenced at the expiry of the commencement period stipulated in the Tender, the contractor shall be liable (in addition to any other penalties liable under the contract) to pay to the Owner a sum of Rs.0.05% (Point Zero Five Percent) of the contract value for each day that the work remain sun-commenced provided that the maximum amount under this sub-clause (excluding penalty or penalties under other sub-clause) shall not exceed 10% (ten percent) of the contract price of the work.
- c) The contractor shall ensure good progress during the execution of the works and shall be bound in all cases to strictly comply with the programme submitted by him and approved by the owner under this contract.

In case the execution of work falls so much in arrears, behind the programme so as to necessitate a fresh programme the approval by the Owner of the revised programme shall not be deemed to prejudice the power of the Owner to levy penalty under this sub-clause with scale prescribed in sub-clause(c) above and the contractor shall remain liable to pay, Rs.0.05% (Point Zero Five Percent) of the contract value per day for the period revised programme had not been approved.

- d) If the Contractor shall fail to complete the works within the time prescribed by section 10 hereof or extended time, then the contractor shall pay to the Owner liquidated damages for such default and not as a penalty of Rs.0.05% (Point Zero Five Percent) of the contract value for each calendar day which shall elapse between the time prescribed by section 10 hereof or extended time as the case may be and the date of completion of the works but not exceeding a maximum of ten percent (10%) of the contract price. The Owner may, without prejudice to any other method of recovery deduct the amount of such damages from any moneys in his hands due or which may become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from any other of his obligations and liabilities under the contract.
- e) If the contractor fails to complete the works in all respects or an abandons in an incomplete state, or where his contract is rescinded due to breach of contract, the contractor shall be liable to pay to the Owner a sum equal to 10% (Ten Percent) of the contract price as penalty.
- f) The Contractor shall not claim exemption from the penalties as a fore said without obtaining a written approval of the Owner. In fact, that the contractor has applied for such exemption would be granted. No such application for exemption shall be consider endless it is submitted within 15 days of the occurrence of the handicap resulting the levy of penalty.
- g) The Owner may without prejudice to any other method or recovery, deduct the amount of the penalties including the amount paid to the consultant as remuneration for supervision beyond the time of completion a prescribed by the section 10 hereof or extended time as aforesaid from any moneys in their hand due or which may be come due to the contractor.
- h) The contractor shall pay a penalty in terms of liquidated damages to the consultant for the supervision service rendered beyond the agreed date of completion as per clause 15 page 7 of Instruction to Tenderers.
- i) The payment or deduction of such penalties and / or liquidated damages shall not relieve the contractor from his obligation to complete the works or from any other of his obligation and liabilities under the contract.

26. VALUABLE / ANTIQUESETC

If during the excavation on the site any valuable or antiques are found, their ownership shall rest with the owner and the Contractor shall immediately hand these over to the owner (where applicable).

27. SUBCONTRACTING

The sub-contracting of this work or part thereof shall not be allowed, however, in case the Contractors wants to sub-contract apart of the work, requiring specialized experience, he may ask for the permission of the Consultants / Owner to do so, but in no case the Contractor shall sub-contract with the work or any part thereof without the permission of the Consultants/Owner.

28. STORAGE

It shall be the responsibility of the Contractor to protect the materials stored on the site for the use at appropriate stage of work, against weathering for that he shall provide adequate storage depots on the site at his own expenses. In the event of the damage to these materials on account of negligence of the Contractor, the consultants shall order for removal of the materials from the site and replacement with fresh materials at the expense of the Contractor.

29. SAMPLES

The Contractor shall submit to Consultants for Owner's approval the samples of the material, fittings and fixtures which he may propose to use for the construction. He shall also provide the details of the origin of such samples to the consultant.

The Consultants may allow the use of these materials with the approval of Owners if he is satisfied with their quality. However, if he finds these samples not in conformity with the specification, he may reject them and ask the contractor to produce the required quality products. The contractor shall use only the materials fittings and fixtures of the approved quality.

30. USE OF SITE

The site handed over to the contractor by the owner for carrying out the tendered work shall not be used for any purpose other than the construction. Any activity other than related to the tendered work shall be considered to be illegal and tantamount to be the breach of the contract.

31. INDEMNIFICATION OF OWNER

The Contractor shall indemnify the owner in respect of all claims, damage, compensation or expenses by any workman or other persons in the employment of the contractor or not, while in vicinity or upon the said works or the site of the same and the owner shall not be responsible to defend all the suits, claims, damages etc. arising out of any activity or consequences thereof connected with the construction. Such activity shall include upon an alleged infringement of a prevented invention and or acts improperly carried out or omission to carry out a proper or delay in carrying out proper work.

32. SITE OFFICE AND STORAGE

The Contractor shall construct at his own expense the necessary site offices and toilet facilities both for his use and for the use of the owner. He shall also construct at his own expense the necessary go downs and storages and access roads if needed. He shall demolish if required by the owner all these structures and clear the site by removing debris.

33. TESTING OF MATERIALS

The contractor shall from time to time carry-out the testing of materials used for the construction as and when desired by the consultants at his own expenses, in the laboratories as approved by the consultants. In the event of the un-satisfactory test results, the consultants shall reject such materials and order demolition of the work constructed from these materials & further order the replacement of the same to meet the required specification at contractors own expense.

34. DEFECTLIABILITY

The Contractor shall be responsible for making good all the defects appearing within 365 days after the satisfactory completion of works. The security deposit of the contractor shall be retained until after the expiry of this defect liability period.

If the Contractor fails to rectify the defects which are brought to his notice by the Consultants, the owner shall get these defects rectified from these crudity deposit at the

risk of the Contractor. The owner may release the security deposit before the expiry of this period, in lieu of the suitable BANK Guarantee which shall be entirely to Owner's discretion.

35. FULFILLMENT OF CONTRACT

On completion of the contract work, the contractor shall intimate the owner in writing and arrange for joint inspection of the completed works by the owner & the consultants. On this inspection, the consultants shall scrutinize the completed work as regards its quality and adequacy in keeping with the contract documents.

If they find the completed works falling short of any of the specifications or other obligations under the contract, they may ask the contractor to rectify the same. If they find the works duly completed as per contract, they may issue the final certificate for payment to the contractor. However, the fulfillment of contract shall not be considered until after the acceptance of the completed work.

36. FORFEITURE

If the contractor shall be come in solvent to have an order admitting a petition in insolvency made against him or shall present his petition in insolvency or shall make an arrangement with or assignment in favor of his creditors or shall agree to carry-out the contract under committee of inspection of his creditors or (being a corporation) shall go into liquidation (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) or if the contractor shall assign the contract without the consent in writing of the owner first obtained or shall have an execution levied on his good so if the consultant shall certify in writing to the owner that in his opinion the contractor.

- a) Has abandoned the contractor
- b) Without reasonable excuse has failed to commence the work or has suspended the progress of work for 15 (fifteen) days after receiving from the consultant written notice to proceed, or
- c) Has failed to proceed with the works with due diligence, or
- d) Has failed to meet the desired schedule of progress of work, or
- e) Has failed to remove materials from the site or pull down and replace work for 15 (fifteen) days after receiving from the Owners through the Consultants written notice that the said material or work has been condemned and rejected by the consultants under these conditions, or
- f) Is not executing the works in accordance with the contract or is persistently or flagrantly neglecting to carry out his obligations under the contract, or
- g) Has to the detriment of good work man ship or in defiance of the Engineer 's instructions to the contrary sub-let any part of the contract, and so often as any of the events aforesaid shall occur, then the owner may adopt any of the following courses as it may deem best suited to the interest of the owner (without prejudice to any rights it may have against the contractor) after giving fifteen days' notice in writing to the contractor.
  - i) Terminate the contract, enter upon the site and the works and expel the contractor there-from in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the owner.
  - ii) Enter upon the site and the works and expel the contractor there-from without there by voiding the contractor releasing the contractor from any of his obligations or liabilities under the contract or affecting the rights and power conferred on the owner or the consultants by the contract and may itself complete the works or may engage any other contractor to complete the works at the risk and cost of the contractor.
  - iii) To complete the works or part of works by the owner at the cost of the contractor, viz to supply labour paid by the owner and to supply materials to carry out the works or any part of the works debiting the contractor with the cost (as hereinafter specified) of labour and materials and crediting with the value of the work done in all respects under same manner and at the same rates as if it had been carried out by the contractor under the terms of his Contract. For the purpose of this clause cost of labour shall be actual expenditure plus 25 % to cover overhead charges, if the materials have been supplied by the owner, the cost of material will be based on the market rate or stock issue rate whichever is greater plus 10 % over head charges. The certificates of the authorized representative of the owner as to the value of the work done and as to the cost shall be final and conclusive against the contractor.

37. i) VALUATION OF VARIATION

The Consultants shall determine the amount (if any) to be added to or deducted from the sum named in the tender in respect of any extra or additional work done or work omitted by his order.

All such work shall be valued at the rate set out in the contract, if in the opinion of the consultants the same shall be applicable if the contract shall not contain any rates applicable to be the extra additional work then reasonable prices shall be fixed by the Consultants. This shall be with the approval of Owners only.

ii) POWEROF CONSULTANT TO FIXRATE

Provided that if the nature or amount of any omission or addition relative to the nature or amount of the whole of the contract work or to any part hereof shall be such that in the contract for any item or the works is by reason of such omission or additions rendered unreasonable or inapplicable the consultant shall fix such other rate or price as in the circumstances he shall think reasonable and proper. In the event of dispute, the decision of the Owners shall be final.

38. VARIATIONS

a) CONTRACTOR NOT TO VARY WORKS.

The Contractor shall not make any variation in the works except in accordance with a written variation order of the Consultants duly approved by the Owner.

b) VARIATION ORDER

The Consultant with the prior approval of the Owner may from time to time make any variation in the form, quality or quantity of the works or any part thereof that may in his opinion be necessary and for that purpose or if for any other reason it shall in his opinion be desirable shall have power by a written variation order to order the contractor to do and the Contractor shall do any of the following:

- i) Increase or decrease quantity of any work included in the contract.
- ii) Omit any such work.
- iii) Change the character or quality or kind of any such work.
- iv) Change the levels, lines, position and dimension so any part of the work and
- v) Executeadditionalorsubstitutedworkofanykindnecessaryforthecompletion of the works.

c) (i) NOT TO INVALIDATE CONTRACT

No variation order shall in any way vitiate or invalidate the Contract but the value if any of all such variations ordered shall be taken into account in ascertaining the amount of the Contract price.



(ii) CHANGE IN QUANTITIES

No such variation shall be made by the Contractor without an order in writing of the Owners through Consultant or his authorized representative PROVIDED that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not a result of an order given under the clause but is the result of the quantities exceeding or being less than those stated in the bill of quantities.

Provided so that if for any reasons the Engineer shall consider it desirable to give any such order verbally, the Contractor shall comply with such order. Any confirmation in writing of such verbal order given by the Engineer whether before or after carrying out of the order shall be deemed to be an order in writing within the meaning of this clause.

(iii) NOTICE OF INTENDED CLAIMS

No claims for any variation shall be allowed except as per the provision contained in section 39. No increase of the Contract price under clause (iii) of this section shall be made unless as soon as practicable and not later than thirty days from the date of the variation order notice shall have been given in writing subject to the approval of the Owner.

(iv) CLAIMS

The Contractor shall send to the Consultant once in every month an account of full and detailed particulars of all claims for any additional expense to which the Contractor may consider himself entitled and of all extra or additional work ordered by the Consultant as per provision of clause(39) which he has executed during the preceding month and no claim for payment for any such work will be considered which has not been included in such particulars, provided always that the Consultant with the approval of the Owner shall be titled to authorize payment to be made for any such work notwithstanding the Contractor's failure to comply with this condition if the Contractor has at the earliest practicable opportunity notified the Consultant that he intends to make claim for such work.

39. MEASUREMENT

(i) RECORD OF MEASUREMENT

The contractor shall submit the interim bills to consultants in triplicate with complete detailed measurements for scrutiny and approval. The consultant after scrutiny of the bill shall send one copy to owner for payment and other copy to the contractor for his record.

The contractor shall be solely responsible for correct recording of the measurement of the items & get them checked by consultants before covering the hidden items.

#### 40. SETTLEMENT OF DISPUTES

In case of any dispute or difference arising between the parties (Contractor and Owner) out of Contract which cannot be amicably settled, shall be finally settled under the provisions of the Arbitration Act. 1940 and rules made there under as amended from time to time. The venue of Arbitration shall be at Karachi.

#### 41. MISCELLANEOUS

Within the ambit of this Contract and to further its execution, the Owner may issue directions from time to time which will be binding upon the Contractor.

#### 42. CONTRACTOR TO PROVIDE EVERYTHING

The Contractor is to provide everything of every sort and kind which may be necessary and requisite for the proper execution of the works included in the contract whether original or altered according to the intent and meaning of the drawings and specification taken together, which are to be signed by the Owner and the contractor whether the same may or may not be particularly described in the specification or shown in the drawings provided that the same are reasonably to be inferred there-from and in case of any discrepancy between the drawings and the specifications the Owner is to decide which shall be followed. The contractor shall also provide all necessary fencing and lights required to protect the public from accident, & shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions, and to any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Contractor be paid to compromise any claim by any such person.

#### 43. ESCALATION

- a). Escalation shall be entertained on only schedule item as per notification issued by government of Sindh/Interim relief.
- b) No Escalation / Claim on account of fluctuations of rates shall be entertained during the currency of Contract against any item under Schedule of Rates involved in Construction of Work, unless announced (on Items) by the Govt. of Sindh after Award of Work but within contract period on "Schedule of Rates Items" only.

b). Non-Schedule Rate Items.

The following basic rates shall be considered for calculating the escalation of the following item (Ex-factory).

O.P Cement	Rs. 23,000/-Per Ton
S.R. Cement	Rs. 24,000/-Per Ton
Steel All Diameters	Rs. 290,000/-Per Ton.

Difference in cost (+/-) will be paid only for material consumed as per R.A bill.

c). No Escalation will be entertained on Non-Schedule items.

44. KEEP FOUNDATIONS AND WORK SFREE FROM WATER

If necessary, the Contractor shall provide and maintain power driven pumps to keep the works free from water. The water shall be disposed to the satisfaction of the local authorities and /or the Consultants.

45. WATER/POWER FOR CONSTRUCTION PURPOSES

The Contractor shall make at his own cost arrangements for water / power and shall have to lay his own distribution system to place where water / power is required. Contractor shall allow free use of water / power to his sub-contractors. If available, the Owner may supply power @0.25% of the Contract amount and 2% for water of the contract amount for this service.

46. BARBENDING SCHEDULE (FOR CIVIL WORKS CONTRACTOR ONLY)

The Contractor shall prepare bar bending schedule for commencing the work of cutting, bending and binding of the steel reinforcement of any structural member for approval of consultant sand for recording in measurement book.

47. AS BUILD DRAWING (FOR CIVIL CONTRACTORS ONLY)

After the completion of the project the following as build drawings should be submitted to the CONSULTANTS for submission to the Owner. (To whom and where applicable)

- i. Complete Architectural Plans.
- ii. Plumbing/Drainage Layout Plans.

In-service drawings all sizes and routing of pipes, cables and wires should be clearly indicated in different colors.

48. TERMS OF PAYMENTS

**a) Mobilization Advance**

(1) Mobilization Advance up to 10% of the Contract Price stated in the Letter of Acceptance shall be paid by the Procuring Agency to the Contractor on the works costing Rs. 2.5 Million or above on following conditions:

- On submission by the Contractor of a Mobilization Advance Guarantee for the full amount of the Advance in the specified form from a Scheduled Bank in Pakistan to the Procuring Agency;
- Contractor will pay interest on the Mobilization Advance at the rate of 10% per annum on the advance; and

- This Advance including the interest shall be recovered in 5 equal installments from the five (05) R.A bills and in case the number of bills is less than five (05) then 1/5<sup>th</sup> of the advance **inclusive of the interest** thereon shall be recovered from each bill and the balance together with interest be recovered from the final bill. It may be incurred that there is sufficient amount in the final bill to enable recovery of the Mobilization Advance.

OR

**(2) Secured Advance on Materials**

- The Contractor shall be entitled to receive from the Procuring Agency Secured Advance against an INDENTURE BOND in P. W Account Form No. 31 (Fin. R. Form No. 2 acceptable to the Procuring Agency of such sum as the Engineer may consider proper in respect of non-perishable materials brought at the Site but not yet incorporated in the Permanent Works provided that:
- The materials are in accordance with the Specifications for the Permanent Works.
- Such materials have been delivered to the Site and are properly stored and protected against loss or damage or deterioration to the satisfaction and verification of the Engineer but at the risk and cost of the Contractor.
- The Contractor's records of the requirements, orders, receipts and use of materials are kept in a form approved by the Engineer, and such records shall be available for inspection by the Engineer:
- The Contractor shall submit with his monthly statement the estimated value of the materials on Site together with such documents as may be required by the Engineer for the purpose of valuation of materials and providing evidence of ownership and payment therefore:
- Ownership of such materials shall be deemed to vest in the Procuring Agency and these materials shall not be removed from the Site or otherwise disposed of without written permission of the Procuring Agency:
- The sum payable for such materials on Site shall not exceed 75% of the (i) landed cost of imported materials, or(ii)ex-factory/ex-warehouse price of locally manufactured or produced materials, or(iii) market price of stand so their materials;
- Secured Advance should not be allowed unless & until the previous advance, if an, fully recovered;
- Detailed account of advances must be kept in part II of running account bill; and

- Secured Advance may be permitted only against materials / quantities anticipated to be consumed / utilized on the work within a period of 3 months from the date of issue of secured advance and definitely not for full quantities of materials for the entire work / contract.
- Recovery of Secured Advance
  - Secured Advance paid to the Contractor under the above provisions shall be effected from the monthly payments on actual consumption basis, but not later than period specified in the useless and more than three months (even if unutilized). Other conditions.
- As recoveries are made the outstanding accounts of the items concerned in Part-II should be reduced to making deduction entries in the column, --- deduct quantity utilized in work measured in previous bill, equivalent to the quantities of materials used by the Contractor on items of work shown as executed in Part 1 of the bill.
- Interim Payments. The Contractor shall submit to the Engineer monthly statements of the estimated value of the work completed less the cumulative amount certified previously.
- The value of work completed comprises the value of the quantities of the items in the Bill of Quantities completed.
- Value of secured advance on the materials and valuations of variations (if any).
- Engineer may exclude any item certified in a previous or reduce the proportion of any item previously certified in any certificate in the light of later information.
- (v) Retention money and other advances are to be recovered from the bill submitted by Contractor.

SECTION – 5

SPECIAL STIPULATIONS AND FORMS

# SPECIALSTIPULATIONS

The Stipulations outlined hereunder in the form of a Table summarize certain terms and conditions which are set forth in the Instructions to Tenderers and Conditions of Contract and these Stipulations Form an integral part of the Contract.

1	Works	<b><u>“External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro”</u></b>
2	Owner	LUMHS, Jamshoro, Sindh.
3	Owner’s Representative	PROJECT MANAGEMENT UNIT LUMHS, Jamshoro, Sindh.
4	Earnest Money	2% of the Tender Price of work in the Shape of Pay order / Demand Draft issued by a Scheduled Bank of Pakistan In Favor of Vice Chancellor , LUMHS, Jamshoro, Sindh.
5	Time for commencement	Within Seven (7) days from the date of receipt of Owner’s letter of Award.
6	Time for furnishing the programme	Within Ten (10) days from the date of receipt of letter of Award
7	Time of completion	02 Months from the date of receipt of Owner’s Letter of Award.
8	Defects liability period	365 days from the effective date of taking over / completion certificate whichever is later.
9	a).Amount of liquidated damages	Rs. 0.05% (Point Zero Five Percent) of contract value for each day of delay in Commencement/Completion of the works subject to a maximum of 10 % of contract price stated in the Letter of Award.
	b). Payment to be made to Consultants	As per Clause 15 Page – 9 of instructions to the tenderers

11	Limit of Retention Money	5% of Final cost of the Project.  a). 50% amount will be released after issuance of completion certificate of substantial completion of works by the Consultants.  b). 50% amount will be released after completion of Defects Liability Period and handing over the site by the Contractor and taken over by the Owners in writing.
12	Minimum amount of interim Payment Certificate (Running Bill)	1/10 <sup>th</sup> portion of total work
13	Time required to enter into and execute the Agreement.	14 (Fourteen) days from date of Award of Work.
14	Escalation in the cost of Material and Labour	All as per Clause 43 Page 28 of special conditions of contract.
15	Time of interim payment	Within 30days from the date of delivery of consultant's certificate to the Owner.
16	Income Tax Deduction	As per Law of Pakistan.
17	Performance Bond	To be obtained from approved Bank for a sum equivalent to 2% of Contract Price stated in the Letter of Award for the whole completion period and also for Defect Liability Period. (No. RA Bill will be processed until the Bond is submitted).
18	Insurance cover for works	It shall be a Contractor All Risk Policy and workmen's compensation policy to cover an amount equal to full contract value and cost of equipment, the labour employed by the Contractor as well as the Owner, visitors and guests. Insurance cover will be arranged by the Contractor from Insurance Company, approved by the owner and should be submitted within 30 days from the date of Owner's Letter of Award.(No. RA Bill will be processed until C.A.R Policy is submitted).



- 19 Minimum Amount of Third Party Insurance Rs.10,00,000/-(Rupees One Million)
- 20 Mobilization Advance Up to 10% (Ten Percent) of the Contract amount, payable to the Contractor against irrevocable guarantee from a schedule bank approved by Owner after execution of the agreement and all other bonds.
- OR
- 21 Secured Advance Secured advance may be paid against non-perishable items delivered at site (No secured Advance will be paid for cement being perishable item)

ACCEPTED

---

Contractor's Signature  
With Stamp & Date

## SECTION – 6

FORMS OF AGREEMENT / PERFORMANCE BOND  
/ MOBILIZATION ADVANCE / INTEGRITY PACT

## AGREEMENT OF WORK

THIS AGREEMENT is made at LUMHS Jamshoro on the \_\_\_\_\_ day of \_\_\_\_\_ 20-\_\_\_\_ Between THE DIRECTOR WORKS & SERVICES, LUMHS, JAMSHORO, SINDH (here in after called the OWNER) of the ONE PART.

and

M/S \_\_\_\_\_ having registered office at \_\_\_\_\_ (herein after called "Contractor") of the OTHER PART.

Whereas the OWNER is desirous that certain WORKS viz: **"External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro should** be carried and has accepted a Tender by the Contractor for the construction, completion and maintenance of the works at an agreed sum of Rs. \_\_\_\_\_ (amounts in words). NOW THIS AGREEMENT WITNESSETH AS FOLLOWS;

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract here in after referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz;
  - a. Tender Notice.
  - b. Instructions to Tenders.
  - c. Special Conditions of Contract.
  - d. Special Stipulations.
  - e. Addenda & Corrigenda, if any, issued by the Owner and duly accepted by the Contractor at the signing of the Contract.
  - f. Earnest Money
  - g. Form of Tender.
  - h. Letter of Award by the Owner
  - i. Form of Agreement / Contract Agreement.
  - j. Owner's Order to Commence the Works.
  - k. Performance Bond
  - l. Contractors All Risk (C.A.R) Policy
  - m. Third Party Insurance
  - n. Other Insurance required as per Contract
  - o. Limit of Retention Money
  - p. Any correspondence by the Owner / Contractor mutually accepted by the Owner and Contractor
  - q. Technical Specifications
  - r. Bill of Quantities

3. In consideration of the convenience and agreement to be kept and performed by the Contractor, and for the faithful performance of this contract and the completion of the works embraced there in, according to the specifications and conditions here in contained and referred to or agreed to in the course of subsequent negotiations and in accordance with the "General Conditions of Contracts " the owner shall pay and the contractor shall receive full compensation for everything furnished and done by the contractor under this agreement, the contract price stipulated in the Contractor's tender, or such other sum as may be ascertained in accordance with such conditions of contract, etc., and rates quoted against each item of work and agreed to and accepted by the parties as one instrument and at the times in the manner prescribed by the conditions of contract.
4. The contractor, at his own proper cost and expense shall do all work and furnish all labour, materials, supplies, water & power, tools, machinery and other equipment and construction al plant that may be necessary for the execution of the work.
5. The maintenance of a rate of progress in the work which will result in its completion within the specified time, is an essential feature of this contract and the contractor agrees to proceed with all due diligence and care at all times and take all precautions to ensure the time of completion as defined herein, time being deemed to be the essence of the contract on the part of the Contractor.
6. The said works shall be started within 7 (Seven) days of the issue of Letter of Award from the Owner to the Contractor to proceed with the works, and the Contract shall be duly completed on or before \_\_\_\_\_
7. The Contract documents (Including any add end a there to) consisting of the Instructions to Tenderers, the Tender for works, General Conditions of Contract, Special Provisions and Stipulations, Bill of Quantities & rates Technical Specifications, Drawings, Performance Bond, Construction Schedule submitted by the Contractor, Letters of Award, forming part of this contract, are each and all made apart hereof, and have the same force and effect as if set forth at length herein.
8. The Owner shall deduct and retain an amount equal to 6% (Six Percent) of the amount payable to the Contractor under each "On Account" bill submitted by the Contractor as security deposit for the due and faithful discharge by the Contractor of his obligations under this agreement. The sum of such security deposit will be refundable to the Contractor after the successful completion and acceptance of works on expiry of twelve months of the maintenance period in a manner indicated in special stipulations. Income Tax will be deducted from every bill submitted by the Contractor as per Law of Pakistan.

9. That this contract agreement shall be executed in four original signed copies, three copies where of shall be filed in the office of the Owner and one given to the Contractor.
  
10. The owner shall make all possible efforts to pay off the running bills on account of work done, submit by the Contractor as early as possible.

IN WITNESS WHERE OF, the Owner and the Contractor have executed this Agreement on the day and year mentioned above.

\_\_\_\_\_  
FOR AND ON BEHALF OF  
CONTRACTOR

\_\_\_\_\_  
DIRECTOR  
WORKS & SERVICES,  
LUMHS, JAMSHORO, SINDH.  
(OWNER)

(SEAL)

(SEAL)

Signed and delivered by the Contractor above named in the presence of :

Signed and delivered by the Owner above named in the presence of :

WITNESS:

WITNESS:

1. \_\_\_\_\_

1. \_\_\_\_\_

2. \_\_\_\_\_

2. \_\_\_\_\_

To,

\_\_\_\_\_  
\_\_\_\_\_

## PERFORMANCE BOND

WHEREAS \_\_\_\_\_

(hereinafter called the Contractor) of the one part by an agreement made between The Director Works & Services, LUMHS, Jamshoro, Sindh (hereinafter called the Owner) of the other part, has entered into a Contract (hereinafter called the Contract) for the construction, completion and maintenance in conformity with the provision of the Contract works viz

\_\_\_\_\_ AND WHEREAS in accordance with the provision of the Contract, the Contractor is required to furnish a Performance Bond for the due performance and observance of all the terms, provision and stipulations of the Contract by the Contractor & the Contractor has requested us

\_\_\_\_\_ To issue the said Bond for an amount of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) equivalent to 2% (Two Percent) of the Contract price.

In consideration of the premises, we \_\_\_\_\_ scheduled bank \_\_\_\_\_ here by guarantee irrecoverably and unconditionally forthwith to pay to the owner without any reference to the Contractor on the Owner's first demand in writing stating that the Contractor has committed a default under the Contract without any further statement of the particulars of such default and notwithstanding any contestation by the Contractor an amount not exceeding Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) limited do hereby further declare that no alternation in the terms of the Contract made by agreement between the Owner and the contractor or in the



# MOBILIZATION ADVANCE BANK GUARANTEE FORM

To,

\_\_\_\_\_  
\_\_\_\_\_

Sir,

We understand that you have entered into Contract with: Messrs \_\_\_\_\_ (Full Name and Address)

(herein after reference to as our Customer) and that one of the conditions of the Contract is submission of Bank Guarantee in the sum of \_\_\_\_\_ against Mobilization Advance and at the request of Customer and in consideration therefore, we here by agree and undertake as under:

1. To pay to you on demand unconditionally and without any question and without any reference to our Customer an amount not exceeding the sum of Rupees\_\_

\_\_\_\_\_  
(in words)

As mentioned in your written demand notice in case of failure of M/s \_\_\_\_\_ to fulfill their obligation including non-completion of project within \_\_\_\_\_ months

2. We hereby guarantee to pay the full amount of this guarantee (as indicated herein above) to be beneficiary if the Contractor.
  - a. Fails to utilize the amount of Mobilization advance for the purpose agreed / indicated in the Contract.
  - b. Fails to repay and or adjust the advance by \_\_\_\_\_ irrespective of any reason.



3. In case beneficiary decides not to encase the guarantee under para 2 (b) above we guarantee to pay the interest@ \_\_\_\_\_% month to beneficiary on the balance amount of advance outstanding against our customer till the full amount is recovered.
4. The validity period of this guarantee is up to \_\_\_\_\_ (date) unless otherwise extended by us, or when its value has been reduced to nil, or upon presentation of a copy of the Certificate with Clause \_\_\_\_\_ of the agreement, whichever is the sooner.
5. Claims, if any must be duly received by us on or before the validity date. Our liability under this guarantee will cease upon the close of banking business hours on this date. Claims received thereafter will not be entertained by us whether or not you have suffered and loss. On receipt of payment under this guarantee, this guarantee must be duly cancelled, discharged and returned to us.
6. We \_\_\_\_\_(Bank) further agree and declare that the beneficiary shall have the fullest liberty without our consent or prior approval and without affecting in any manner our obligations, to vary and of the terms and conditions of the said agreement or to extend time of its performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the beneficiary against the contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and be it expressly declared that notwithstanding and such variations or extension being granted to the contractor(s) by the beneficiary of the beneficiary in favor of the contractor(s), the contractor(s) shall not be relieved of their liability by reason of such variation, extension or acts of forbearance.
7. In order to give full effect to the guarantee herein contained, our liability shall not be discharged or account of beneficiary forbearance, variation, extension nor shall we claim any rights or surety ship in respect of any security which you might be having in respect of the said agreement.

8. The maximum liability under this guarantee will be reduced equal to the amount recovered by the beneficiary through the contractors running bills
9. This guarantee, within the validity period shall not be affected by any change in the constitution of the contractor or us nor shall it be affected by any change in beneficiary constitution.
10. The guarantee shall come into force upon receipt by M/s of the Mobilization advance.
11. This guarantee shall not be revocable by us except with beneficiary previous consent in writing.
12. It shall not be necessary for beneficiary to proceed against the contractor before proceeding against us and the guarantee herein contained shall be enforceable against us not withstanding any security which beneficiary may have obtained or obtain from contractor(s) at any time or when proceedings are taken against us.
13. We certify that our bank is a scheduled bank.

**Guarantor**

( \_\_\_\_\_ Bank Limited.)

Bank seal and signature

**Contractor:**

The signature should be of the same person who had signed the Contract.

**WITNESS:**

1 \_\_\_\_\_

2 \_\_\_\_\_

Full Name, Address and  
N.I.C. No. of the Bank Official.

## INDENTURE FOR SECURED ADVANCES.

(For use in cases in which is contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time).

This INDENTURE made the \_\_\_\_\_ day of \_\_\_\_\_ 20 BETWEEN (hereinafter called "the Contractor" which expression shall where the contract so admits or implied be deemed to include his heirs, executors, administrators and assigns) of the one part and THE GOVERNOR OF SINDH (hereinafter called "the Government" of the other part).

WHEREAS by an agreement, dated \_\_\_\_\_ (herein after called the said agreement, the Contractor has agreed to perform the under mentioned works (herein after referred to as the said work): -

(Here enter (the description of the work).

AND WHEREAS the contractor has applied to the \_\_\_\_\_ for an advance to Him of Rupees \_\_\_\_\_. (Rs. \_\_\_\_\_) on the security of materials absolutely belonging to him and brought by him to the site of the said works the subject of the said agreement for use in the construction of such of the said works as he has under taken to execute at rates fixed for the finished work (inclusive of the cost of materials and labour and other charge) AND

WHEREAS the Government has agreed to advance to the Contractor the sum Rupees, (Rs. \_\_\_\_\_) on the security of materials the in Part II of Running Account Bill (E). the said works signed by the contractor (*Fin R. Form17.A*) on\_ and on such covenants and conditions as are herein after contained and the Government has reserved to itself the option of marking any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

NOW THIS INDENTURE WITNESSETH that in pursuance of the said agreement and inconsideration of the sum of Rupees \_\_\_\_\_ (Rs. \_\_\_\_\_) on or before the execution of these presents paid to the Contractor by the Government (the receipt whereof the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as aforesaid (all of which advances are hereinafter collectively referred to as the said amount) the Contractor doth hereby assign up to the Government the said materials by way of security for the said amount.

And both here by covenant and agree with the Government and declare by follow:

- That the said sum of Rupees \_\_\_\_\_ (Rs. \_\_\_\_\_) so advanced by the Government to the Contractor as aforesaid and all or any further sum or sums which may be advanced aforesaid shall be employed by the contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- That the materials detailed in the said Running Account Bill (B) which have been (*Fin R. Form No. 17.A*) offered to and accepted by the Government as security for the said amount are absolutely by the Contractors own property free from encumbrances of any kind and the Contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor here by agrees, at all times, to indemnity and save harmless the Government against all claims whatsoever to any materials in respect of which and advance has been made to him as a foresaid.
- That the said materials detailed in the said Running Account Bill (B) and all other Materials on the security of which any further advance or advances may hereafter be made as a foresaid (herein after called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Divisional Officer \_\_\_\_\_ (herein after called the Divisional Officer) and in the terms of the said agreement.
- That the Contractor shall make at his own all necessary and adequate arrangement for the proper watch, safe custody and protection against all risks of the said material and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and at his own risk and on his own responsibility and shall at all times be open to inspection by (he Divisional Officer or any Officer authorized by him. In the event of the said materials of any part (here of being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof Contractor will forthwith replace the same with other materials of like qualify or repair and make good the same as required by the Divisional Officer and the materials so brought to replace the said materials so repaired and made good shall also be considered as security for the said amount.
- Hurt the said materials shall not on any account be removed from the site of the said works except with the written permission of the Divisional Officer or an officer authorized by him in that behalf.

- That the said amount shall be payable in full when or before the Contractor receives payment, from the Government of the price payable to him for the said works under the terms and provisions of the said

Agreement PROVIDED THAT if any intermediate payments are made to the contractor on account of work done then on the occasion of each such payment the Government will be at liberty to make a recovery from the Contractors Bill for such payment by deducting there from in the value of the said materials (hen actually used in the construction and in respect of which recovery has not been made previously the value for this purpose being determined in respect of each description of material at (he rates at which the amount of the advances made under these presents were calculated.

- That if the Contractor shall at any time make any default in the performance or observation in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing to the Government shall immediately on the happening of such default be repayable by the Contractor to the Government together with interest thereon at twelve percent per annum from the date or respective dates of such advance or advances to the date or repayment and with all costs, charges, damages and expenses incurred by the Government in or for their covey thereof or the enforcement of this security or otherwise by reason of (he default of the Contractor and any money so becoming due and payable shall constitute a debt due from the Contractor to the Government and the Contractor hereby covenants and agrees with the Government to repay and the same respectively to it accordingly.
- That the Contractor hereby charges all the said materials with the repayment to the Government of the said sum of Rupees:\_\_\_\_\_ (Rs. \_\_\_\_\_) and any further sum or sums which may be advanced as aforesaid and all costs charges damages and expenses payable under these present PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and without prejudice to the powers contained therein if and whether the covenant for payment and repayment herein before contained shall become enforceable and the money owing shall not be paid to accordingly.

Once there with the Government may at any time thereafter adopt all or any of following courses as it may deem best: -

- Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the Contractor in accordance with the provisions in that behalf contained in the said agreement debiting the Contractor with the actual cost of effecting such completion the amount due in respect of advances under these presents and crediting the Contractor with the value of work done as he had carried it out in

accordance with the said agreement and at the rates thereby provided. If the balance is against the Contractor, he is to pay the same to the Government on demand.

- Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable to the Government under these present and pay over the surplus (if any) to the Contractor.
- Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.

That except as is expressly provided by the presents interest on the said advance shall not be payable.

That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been hereinbefore expressly provided for the same shall be referred to the Super intending Engineer\_Circle whose \_\_\_\_\_ decision shall be final and the provisions of the Indian Arbitration Act for the time being in force so far as they are applicable shall apply to any such reference.

In witnesses where of the\* \_\_\_\_\_ on behalf of the Governor of Sindh and the said \_\_\_\_\_ Have here unto set their respective hands and seals the day and first above written.

Signed sealed and delivered by\*in the presence of

Seal  
1<sup>st</sup>witness2<sup>nd</sup>witness

Signed sealed and delivered by\*in the presence of

Seal  
1<sup>st</sup>witness2<sup>nd</sup>witness

**INTEGRITY PACT.**

(Letterhead of the Firm)

**DECLARATION OFFEES, COMMISSION AND BROKERAGE ETC.PAYABLE BY CONTRACTORS**

(FOR CONTRACTS WORTH RS.10.00 MILLION OR MORE)

Contract No. \_\_\_\_\_ Dated: \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Title: \_\_\_\_\_

..... [name of Contractor] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoS) through any corrupt business practice.

Without limiting the generality of the forgoing, the \_\_\_\_\_ [name of Contractor] represent and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder’s fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or including the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form, from Procuring Agency(PA) except that which has been expressly declared pursuant hereto.

..... [name of Contractor] accept full responsibility and strict liability that it has made and will make full disclosure full agreements and arrangements with all persons in respect of or related to the transaction with PA and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

..... [name of Contractor] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting fact so taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to PA under any law, contract or other instrument, be voidable at the option of PA.

Notwithstanding any rights and remedies exercised by PA in this regard, the ..... [name of Contractor] agrees to indemnify PA for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to PA in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the ..... [name of Contractor] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from PA.

.....  
[Procuring Agency)

.....  
[Contractor]



SECTION – 7

TECHNICAL SPECIFICATION

# SECTION – TECHNICAL SPECIFICATIONS

## CIVIL WORK

### SCOPE OF WORK

The work covered by this section of the specifications consists of furnishing all plant, labour, equipment, appliances and materials and in performing all operations in connection with excavating filling and backfilling for building construction and other foundation complete in strict accordance with the applicable drawings and subject to the terms and conditions.

1 (a) EXCAVATION AND BACKFILLING

As specified in the Bill of Quantities.

1. (b) DISPOSAL OF SURPLUS EARTH AND RUBBISH

All surplus earth and rubbish shall be disposed of by the Contractor at his cost as directed by the Consultants. The terms of disposal shall include all operations of loading, unloading, stacking, spreading filling depressions, consolidating & ramming in layers not exceeding 12" (300mm) thickness.

2 CONCRETE WORK

### SCOPE OF WORK

The work covered by this section of the specifications consists of furnishing all labour, equipment, appliances and materials and in performing all operations in connection with concrete work complete in strict accordance with the applicable drawing and the specifications there in and subject to the terms and conditions of the contract.

Electrical / Mechanical poker vibrator of suitable diameter shall be used for vibrating all concrete specially R.C.C. works.

a) Full cooperation shall be extended to other trades to install embedded items. Embedded items will be inspected and tests for concrete and other materials or for mechanical operations will be completed and approved before concrete is placed.

b) MATERIALS

i) WATER

Only clean water from the city supply, tube well installed at the site or from other sources approved by the Engineer In-charge shall be used in mixing concrete, Curing, Cleaning plant and tools. The water shall be tested according to B.S.3148. When its suitability is doubtful.

The Engineer In-charge may refuse to permit water containing any sugar, excess, acid alkali or salt. As a guide the following concentrations represent the maximum permissible values:

- i. To neutralize 260 ml sample, it should be required more than 2 ml of 0.1 normal NaOH.
- ii. To neutralize 200 ml sample, it should not require more than 10 ml of 0.1 normal HCL.
- iii. Percentage of solids should not exceed the following.

*	Percentage
<b>Organic</b>	0.02
<b>Inorganic</b>	0.30
<b>Sulphates</b>	0.50
<b>Alkalichlorides</b>	0.10

*Table4.3*

In case of doubt the Engineer In-charge may require that concrete mixed with water proposed to be used should not have a compressive strength lower than 90% of the strength of concrete.

ii) CEMENT:

In all the R.C.C. structure, sulphate resisting cement shall be used upto plinth level (If Specified in Structural drawings).

In super structure ordinary grey Portland cement (local) shall be used. Use of imported cement is totally forbidden unless approved by the CONSULTANTS.

- iii) The Contractor shall provide at his own cost on the site all necessary sheds which shall be perfectly dry and watertight for the storing of cement to be delivered to the works to ensure adequate supplies being available for site work.
- iv) If at any time the Consultants consider that any batch of cement may have deteriorated on site during storage of any reason he will direct that tests shall be made and the batch of cement on the site which may be in question, shall not be used until it has been shown by test to be satisfactory. Any rejected cement shall be removed from the site by the Contractor without delay. Cement reclaimed from cleaning bags or leaking containers shall not be used.
- v) Cement shall be consumed in the sequence of receipt of shipment unless otherwise directed by the Consultants.

c) AGGREGATES

- i. All fine and coarse aggregate to be used shall be supplied from approved source which shall not be changed without permission in writing from the Consultants. Aggregate shall conform to the test requirements of B.S.No.812 or equivalent ASTM or Pakistan Standard 243:1963.
- ii. Fine aggregate shall be approved sand to be obtained from approved source and shall be clean sharp, free from clay, earth, vegetable and organic matters, alkaline or acid reactions or other deleterious matter or impurities.

- iii. Fine aggregates shall conform to British Standard Specifications B.S.No.882 and shall be graded as follows:

B.S. Sieve	Percentage(weight)Passing	
No.	(GradingZone-1)	(Grading Zone -2)
3/8" (10mm)	100	100
3/16"(5mm)	90 –100	90 –00
No.7	60 –110	75 –100
No. 14	30 –70	55 –90
No. 25	15 –34	35 –59
No. 52	5 –20	8 –30
No.100	0 –10	0 –10

- iv. Locally available Coarse aggregate shall be crushed stone and shall be clean free froms and, dust, salt, lime, chalk, clay, organic impurities or other deleterious matter.
- v. Coarse aggregate shall conform to the relevant British Standard specifications or ASTM Standard.
- vi. If required, aggregate shall be washed and screened to the satisfaction of the Consultants before use by making proper screening and washing.
- vii. Sieve analysis and other necessary tests of all aggregates shall be carried out as and when required by the Consultants. Sample for such tests shall be taken in the presence of the Consultants.
- viii. All costs in connection with the tests shall be borne by the Contractor.
- ix. All aggregates shall be subject to the approval of the Consultants. Any aggregates not found to the required standard shall be rejected by the Consultants and shall have to be removed from site without any delay. Concrete structures executed with rejected aggregates shall be dismantled and rebuilt at the contractor's expense.

### 3. CLASSIFICATION OF CONCRETE

Classes of concrete to be used in various parts of the works shall be indicated on the drawings and concrete of various grades shall be proportioned as set out in Table-1 appended here to.

Table-1 showing minimum required compressive strengths of 6in.x6in.x6in. (150 x 150 x 150 mm) cubes and minimum quantity of cement required per 100 cubic feet of finished concrete for various mixes and under various conditions.

Class of Concrete	Nominal Mix-Ratio	Min.Qnty Bags per %cft.	Preliminary test Cubes strength.		Work test Cube strength.	
			p.s.i at 7days	p.s.i at 28days	p.s.i at 7days	p.s.i at 28days
A	1:1:2	30	4000	6000	3000	4500
B	1:1-1/2:3	24	3300	5000	2500	3750
C	1 :2:4	17	2660	4000	2000	3000
D	1 :3: 6	13.5	1330	2000	1000	1500
E	1 :4: 8	10.0	900	1350	660	1000

The Mix-Ratio indicated in above table are only as guide line normally these ratios achieve the required strength but may vary due to quality of aggregates available in the area of work. The structural design is based on cube strength after 28 days. Therefore, the strength should be achieved by design of mix.

To achieve the required strength is the sole responsibility of the Contractor. No Admixture is recommended for use in concrete for getting the required strength, if any Admixture is recommended by the Laboratory it may be used after approval from The Consultants at the entire RISK AND COST of the Contractor. No extra payment will be made in this regard even if the Admixture is approved by the Consultant.

#### 4. PROPORTIONING OF CONCRETE MIXES

All concrete shall be proportioned by volume unless specifically allowed by Consultants. This proportions given in Table-1 above are suitable only when the specific gravities of the aggregate are in the region of 2.5.

The Contractor shall submit to the consultant proposed mix designs for concrete to be used, based on preliminary laboratory test to determine proportion of cement, aggregate and water in the concrete conforming to the quality and strength requirement specified herein Preliminary test results of at least three different mixes of each class of concrete with varied water cement ratio shall be submitted. The results of 7 days and 28 days' cube tests shall be used to establish the relation between 7 days and 28 days' strengths.

The consultants may make adjustments in the mix for a certain work. Preliminary design of mixes and testing shall be a responsibility of the contractor. The proportions void in the aggregate shall be controlled and if it exceeds 45%, sand and consequently the cement shall be increased by the contractor without any charge. If the proportion is less than 40%, sand shall be decreased but not the cement.

#### 5. WATER CEMENT RATIO

##### 5.1 SLUMP TEST

A test of the plasticity and flow ability of concrete should be made in the field in presence of Representative of Owner during every concrete operation. The slump cone is a sheet metal (or frustum of a cone) 12" high, 4" in diameter at the top and 8" in diameter at the bottom. After the mixer is fully emptied of a batch, the cone is filled in three layers, Roding each layer 25 times with a 5/8" dia bullet pointed rod. The cone is then lifted and the slump is measured. The height of the pile will be less than 12". The allowable slump is generally defined in specifications.

## 5.2 MAXIMUM ALLOWABLE WATER CONTENT

All concrete specimens shall be made, cured and tested in accordance with British Standard or ASTM Standard. A curve representing the relation between the water content and the average 28 days compressive strength earlier strength at which the concrete is to receive its full working load shall be established for a range of value including all the compressive strength shown on the Plans. The curve shall be established by at least four points, each point representing average values for at least four test specimens. The maximum allowable water content for the concrete shall be as determined from this curve and shall correspond to a strength 15% greater than indicated on the plans. The slump for concrete shall be minimum of 1" (25mm) and a maximum of 2-1/2" (75 mm) provided the requisite strength is obtained. Corrective additions to remedy deficiencies in aggregate gradations shall be used only with the written approval of the Consultants. When such permissions are permitted the material shall be measured separately for each batch of concrete.

## 6. SAMPLES AND TESTING

### a. GENERAL

Test cubes concrete shall be provided and stored by the Contractor as and when directed by the Consultants. Test cubes shall be tested by the approved laboratory and the contractor shall bear the charges for the same.

b. Cement shall be tested as prescribed in British Standard or ASTM Standard, at the cost of Contractor.

### c. AGGREGATES

Aggregates shall be tested at Contractor's cost as prescribed in British Standard 812. In addition, fine aggregates shall be tested for organic impurities in conformity with B.S. 812 or equal ASTM Standard.

### d. TESTING OF CONCRETE

- i. All test cubes shall be 6x6 x6 inch (150 x150 x150mm) size.
- ii. Specimens shall be cured under laboratory conditions except that the Consultants may require curing under field conditions.
- iii. Three cubes of the set shall be tested at 7 (seven) days and 3 (three) shall be tested at 28 days or at such ages as directed by the Consultants.
- iv. All cube moulds shall be steel mould perfectly true having all internal and the meeting faces machined to smooth surface as approved by the Consultants.
- v. If the strength tests of the laboratory controlled specimens for any portion of the work falls below the minimum allowable compressive strength at 28 days required for the class of concrete used in that portion the consultants shall have the right to order replacement of the affected work.

e. PLACING CONCRETE

- i. All concrete shall be thoroughly compacted and consolidated by means of pneumatic mechanical or electrical vibrators or other approved compacting method. Care shall be taken to avoid segregation due to excessive vibration and placing / dropping of concrete from a height of more than 7'-0". The contractor shall maintain on site at all times one or more stand-by vibrators.
- ii. Compaction shall be done until the whole mass assumes jelly like appearance and consistency, with the water just appearing on the surface. Concrete shall be sufficiently tamped and consolidated around the steel rods, care be taken that the vibrator does not as such touch steel or formwork.
- iii. Hardened concrete, debris and foreign materials shall be removed from interior of form sand from inner surface of mixing and conveying equipment's.
- iv. Constructions joints in concrete shall only be given at location indicated in the drawings or as approved by the Consultants. At the end of the day's work the concrete shall be finished off against a temporary shutters top which shall be vertical and securely fixed.
- v. Should any part of the exposed surface present a rough uneven or imperfect appearance when shuttering is removed, it shall be picked out to the such depth and refilled and properly resurfaced as per directions of the Consultants.
- vi. Whole work is to be smooth, pleasing and to the entire satisfaction of the Consultants.

7. FORM WORK

48. GENERAL

The form work shall be inclusive of all labour, material, workmanship and a like. All formwork and supports thereto shall be designed by the contractor and relevant drawings shall be submitted to the Consultant for approval before the work is put in hand. Such an approval shall not relieve the contractor for all the obligations of the contractor give rise to any claims.

49. FORM WORK NOT TO INTEREFERE AND INJURE WORK.

The form work shall be so designed and arranged as not be unduly interfere with concrete, during its placing, and easy to be removed without injuring the finished concrete edges, clamps, bolts and tie rods shall be used, when permitted and where practicable, in making the formwork rigid and in holding it to true position.

50. OPENINGS IN FORM WORK.

Wherever the concreting is required to be carried out within forms of considerable depths, temporary openings in the side of the form shall be provided to facilitate the pouring and consolidation of the concrete. Small temporary openings shall be provided at the bottom of all forms to permit the removal of rubbish etc.

## 51. OPENINGS IN THE STRUCTURE AND OTHER DETAILS.

Provisions shall be kept in the form work for openings such as recesses, holes, packets, fillets etc. for housing services and other architectural details in the finished concrete or on its surface and edges as shown on drawings or as directed by the Consultants to fix all necessary inserts, dowels pipe, holdfast, etc. as shown on drawings or as directed.

## 52. JOINTS IN FORM WORK.

All joints in the form work shall be sufficiently water tight to prevent undue leakage or cement slurry from concrete surface not to be exposed in the finished work. The joints in the form work for all concrete surfaces to be exposed in the finished work shall be water tight jointed and perfectly smooth so as not to allow any leakage of the cement slurry from the concrete.

## 53. TREATMENT AFTER REMOVAL OF FORMS.

All honey combing or other irregularities are to be properly made good upon the removal of the form work and the surface made good to the satisfaction of the Consultants. All such defects must be inspected by the CONSULTANT before carrying out any remedial work.

54. No form work shall be measured and paid for separately and shall be deemed to be included in the unit's price of Concrete whether cast-in-situ or pre-cast and subsequently fixed in position.

## 8. CLEARING AND REMOVAL OF RUBBISH

On completion of works herein the contractor shall remove all concrete debris, rubbish, shuttering materials, scraps etc. from the vicinity of the structures completed. All areas shall be cleaned to the satisfaction and approval of the Consultants.

## 9 REINFORCEMENT STEEL

### 9.1 SCOPE OF WORK

The work covered by this section of the specifications consists of furnishing all materials, tools, labours and in performing all operations in connection with providing, straightening, cutting, bending, binding and fixing in strict accordance with this section of specifications, the applicable drawings, bar bending schedule, (to be prepared by the CONTRACTOR as per terms and conditions of the contract).

### 9.2 MATERIALS:

- i). Reinforcing steel to be new billet stock of deformed steel as specified on the drawings  
And shall conform to British Standard Specifications or equivalent ASTM or Pakistan Standard.



- ii). The Contractor shall furnish to Consultants, Manufacturer's mills certificate to guarantee that steel meets the standard, specifications, requirements and minimum certified yield stresses as follows:

ALL REINFORCEMENT STEEL SHALL CONFORM TO ASTM A-615

YIELD STRENGTH	60,000Psi
ELONGATION	14%

10. BRICK MASONRY

10.1 SCOPE OF WORK

The work covered under this section of specifications consists of furnishing all labour, material tools and plants for the satisfactory completion of the works in accordance with the drawings as specified herein and subject to the terms and conditions of the contract.

10.2 GENERAL

Each finished brick shall not be less than 3" x 4½" x 9" in size and shall have a ¼ "deep frog on the upper face. All the bricks shall be regular, of homogenous texture uniform in shape and size with sharp and square arises, parallel faces and deep red colour may vary by 1/8" from the standard size. When stuck, they should give a clear ringing sound. They shall not absorb more than 1/6<sup>th</sup> of their weight of water after being soaked for one hour, and shall show no sign of effervescence on drying. A good brick should not break when struck against another brick or when dropped flat from a height of 3'-0" to 4'-0" on the ground. It should have a surface so hard that it cannot be scratched by finger nail. The average compressive strength of five representative bricks shall not be less than 1,800 P.S.I.

10.3 EXECUTION

- a) Unless otherwise specified, bricks shall be laid in English Bond with the frogs upwards. Each brick shall be set with both bed and vertical joints filled with mortar and thoroughly bedded in by tapping with handles of the trowel. No half bricks or bats shall be used except where necessary to complete the Bond. Simple lipping with mortar at the edges shall not be permitted.
- b) All bricks work shall be taken up truly plumb and should be so done with a plumb and straight edge.
- c) Brick work shall be carried up all round at the same height and during construction one part of wall should not be more than 3'-0" higher than any other part.
- d) Brick work constructed shall be of best standard of workmanship obtainable and objectionable offsets in the brick work shall be removed by and at the expense of the contractor.
- e) Each course in the wall after being laid should be properly grouted to fill all of the voids in the area. The grout should be fluid enough to perform this function.

## 10 PLASTERING.

### 11.1 SCOPE OF WORK.

The work covered under this section of specifications consist of furnishing all labour, material, tools and plants for the satisfactory completion of the works in accordance with the drawings, as specified here in and the terms and conditions of the Contract.

### 11.2 MATERIALS.

#### a) CEMENT

Cement shall be as specified in the section of Plain and Reinforced Cement Concrete.

#### b) SAND

Sand shall be as specified in the section of concrete work except that the maximum size shall be restricted to that passing a No. 14 sieve for finishing coat and passing a No.7sieveforbase coat (if any)

#### c) WATER

Water shall be as specified in the section of Concrete work.

### 11.3 MORTAR COMPOSITION

- a) Mortar for cement plaster shall be mixed in the properties as specified in the Bill of Quantities and shall be applied in one coat or two coats thickness as given in Bill of Quantities and relevant drawings.

### 11.4 MORTAR BATCHING

- a) Methods sand equipment used for mixing mortar shall be such as will accurately determine and control the amount of such separate ingredient entering into mortar.
- b) The mortar shall be prepared by mixing the ingredients twice in a dry state, on apucca platform or in trough and then mixing thoroughly after the addition of water.
- c) Mortar shall be mixed only in sufficient quantities for immediate use and all mortar not consumed within 30 minutes after the addition of water to the dry mix shall be rejected and the same will not be allowed to be used. Mixing rough sand pans shall be thoroughly cleaned and washed at the end of each day work.

### 11.5 PLASTERING

- a) The joints of Block Masonry, which in to be plastered, shall have ½ “deep grooved join which should be raked before the mortar set search day
- b) Theconcretesurfacetoreceiveplastershallbeproperlyroughenedbydragging with wire brushes while the concrete has not hardened. In case of the hardened concrete, the surface shall be roughened.
- c) The surfaces to be plaster shall be kept damp for at least two hours and then treated with cement slurry before plastering.

- d) Level pegs shall be made for all plaster work and shall be got checked from the Engineer at least one day before the plastering work is carried out.
- e) The plaster shall be laid to a true and plumb bob and a straight edge not less than 10 feet in length. All horizontal lines and surfaces shall be tested with a level and all vertical lines and corners with a plumb bob as the work proceeds. The plaster shall be finished perfectly smooth and shall be without wavy surfaces. The edge and corners shall be rounded or chamfered if instructed by the Engineer.

## 12. GLAZED, MATT FINISH WALL AND FLOOR TILES

### 12.1 GENERAL

The contractor shall supply and fix tiles as described in B.O.Q.

### 12.2 LAYING

- i) All tiles should be soaked in water before laying insufficient quantity to complete a day's work.
- ii) All tiles shall be set in bed of cement sand mortar to its correct level and line the mortar shall be evenly spread on the full bottom of tiles.
- iii) Joints shall be grouted with white cement mixed with matching color of tiles as approved by the Engineer in charge.

## 13. PORCELAIN, TERRAZO AND MARBLE TILES

### 13.1 GENERAL

- a) The contractor shall submit samples of Marble and Porcelain Tiles for flooring and dado required in various locations. The finished floors and dados shall conform in all respects to the characteristics of approved sample by the CONSULTANT /OWNER.
- b) Marble tiles shall be of first quality, free from cracks chips or any other defects and shall be uniform in tone and color, as selected by Consultant. Marble Tiles be 1/2" thick, on floors and 3/4" thick on steps of staircases where specified.
- c) Marble Tiles in floor, steps and Risers be laid on a layer of pure white cement slurry over cement Concrete Bed.

### 13.2 LAYING

- i) Immediately prior to laying the tiles will be checked the lot and rejected tiles be replaced.
- ii) All Tiles shall be set in bed of cement / sand mortar to their correct lines and level and the mortar shall be spread evenly on the full bottom of tiles.

iii) All Tiles should be set without joints (Butt joints) as approved by the Consultants.

iv) Marble Tiles be polished and finished with chemical polish.

## 14. CARPENTRY, JOINERY AND HARDWARE

### 14.1 SCOPE OF WORK

The work covered by this section of the specifications consists of furnishing all plant, labour, equipment, appliances and materials and in performing all operations in connection with fabrication and installation of shelves, cupboards paneling, doors/ Windows frames, shutters etc. as per size, thickness, dimension and details shown on the working drawings, compete schedule of Doors and Windows in strict accordance with this section of the specification and the applicable drawings, finishing schedule, instructions of the Engineer.

### 14.2 MATERIALS, FITTINGS & SAMPLES

#### (i) SOFTWOOD

The timber of trees belonging to the botanical group Gymnosperms, commercial timber deodar of this group, with best quality shall be used.

#### (ii) PLYWOOD

Shall comply in all respects with B.S.S. 1455: 1948. The plywood shall only be obtained from approved manufactures.

The plywood used for doors, paneling and the like shall be of the thickness as specified. The grade shall be first quality. The face and back shall be free from end-joints, dead-knots, overlaps, patches and other defects. Edge joints in veneers shall be well made. Isolated pinworm holes shall be permitted provided they do not run along with plane of the veneer. The face and back shall be free smooth for painting or polishing.

#### (iii) TEAK VENEER BOARD

Shall be first quality obtained from the manufacture approved by the Engineer / Consultant.

### 14.3 HARDWARE AND FITTINGS

Hardware and fittings shall be heavy duty hardware of approved quality and manufacture otherwise mentioned in the drawings and Bill of Quantities.

#### 14.4(i) LOCKS AND DOOR CLOSER

Shall be of the best quality available from the approved manufacturers according to the Samples approved by the Consultants.

(ii) HINGES

Shall of best quality (local) heavy duty steel hinges 3" (75 mm) in windows, 4" (100mm) in single leaf doors and 5" (125 mm) in Main door every leaf should have 4 hinges fixed with steel screws.

(iii) All other fittings shall be best quality available from approved manufacturer. Samples shall be submitted to the consultants, for his approval. Cost of hardware shall be included in item of door and no separate payment will be made.

(iv) HARDWARE-SCHEDULE

Each flush door shutter shall be furnished with the following.

- Best quality (aluminum or bronze) Mortice lock/knob set(local)-1No.
- Tower-bolts 8" (200 mm) long chromium plated / Aluminum (local)-2 Nos. Door closers (Japan) of approved Manufacturer where directed by the Engineer-1No.
- Kick-plates/push plates of stainless steel 6"x1/8" (150mmx3mm) where directed by the Engineer-both sides. All material will be best quality as approved / specified by the owner.

(ii). HINGES

Shall of best quality (local) heavy duty steel hinges 3" (75mm) in windows. 4" (100mm) in single leaf doors and 5" (125 mm) in Main door every leaf should have 4 hinges fixed with steel screws.

(iii). All other fittings shall be best quality available from approved manufacturer. Samples shall be submitted to the consultants, for his approval. Cost of hardware shall be included in item of door and no separate payment will be made.

(iv). HARDWARE-SCHEDULE

Each flush door shutter shall be furnished with the following.

- Best quality (aluminum or bronze) Mortice lock/knob set(local)-1No.
- Tower-bolts 8" (200 mm) long chromium plated / Aluminum (local) -2 Nos. Door closers (Japan) of approved Manufacturer where directed by the Engineer-1No.
- Kick-plates / push plates of stainless steel 6"x 1/8" (150 mm x 3mm) where directed by the Engineer-both sides. All material will be best quality as approved / specified by the owner of the time of installation.

#### 14.5 WOOD TREATMENTS

In addition to the prior seasoning treatment of timbers, ceilings frame joints, purlins, planks, all the door frames, furring strips blocking grounds, nailing strips in contact with concrete or masonry or wood or other materials, shall first be treated with the pesticides designated in relevant section on Termite control of these specifications and then with so lignum or equally approved material in accordance with manufacturers /consultant's instructions.

#### 14.6 FLUSH DOORS

Flush doors shall be solid cored as per description in Bill of Quantities covered on both side with commercial ply or Teak veneered block board as specified in drawing. The doors shall be lipped and edges fitted and hung to the frames. The flush door shall be obtained from the source approved by the consultant and shall be of uniform quality and texture.

#### 14.7 FABRICATION

- (a) The contractor shall perform all necessary grooving's, notching, tonguening, housing, rebating and all other work necessary for the correct jointing's. The contractor shall also provide all metal plates, screws, nails and other fixing that may be necessary for the proper execution of the joinery work specified. The contractor shall also require to carry out all works necessary for the proper construction of all framings, etc. and for their support and fixing in the building. All wood work shall be approved and initialed by the consultant or Engineer before being fixed in position.
- (b) Any joinery which may show signs of defects arising from the unsound materials or defective workmanship before the expiry of the maintenance period shall be cut out and replaced at contractor's own expense.
- (c) All hold-fast are to be cut to size and shall be 1/8" thick M.S. flat iron as shown on the drawing.
- (d) Solid wood frames as per BOQ or as shown on drawing are to be prepared with post stoned with the bead sor as shown on the drawings.
- (e) The shutters will be fixed to the frames with approved quality fittings. The frames will be secured with wrought iron clamps.
- (f) All doors and window shutters shall be fabricated in workmanlike manner in accordance with the drawings or as directed by the Engineer.
- (g) All articles of ironmongery to be soundly and strongly made well finished and equal in quality to first grade articles of approved manufacturers.
- (h) Steel fittings are to be furnished and oxidized on exposed surfaces. Aluminum fittings are to be anodized on exposed surfaces. Aluminum fittings are to be the best quality of their kind and shall have a base coat of brass or copper.

- (i) Locks, or knob sets, handles, heavy handles etc. shall be as specified and approved by Engineer / Consultant.
- (j) Paint and Polish shall be carried out as specified in relevant section.
- (k) Anti-termite treatment of approved quality shall be applied to frames on the surface in contact with earth, or wall etc. as per directions of Engineer. Contractor's rates in BOQ for doors, windows shelves etc. shall include this item and no additional payment shall be made.
- (l) (i) Three coats of Enamel paint should be applied on all wood work after preparing all surfaces.  
(ii) Three coats of Enamel paint on all steel works over priming coat of Red oxide.

#### 14.8 SHOP DRAWINGS AND SAMPLES

The contractor should submit the shop drawings for the approval of Consultants or should submit sample of one complete door and window for approval of Consultant /Owner.

### 15. GLAZING

#### 15.1 SCOPE OF WORK

The work covered under this section of specifications consists of furnishing all labour material, tools and plants and performing all operations in connection with fixing of the glass to the doors windows, skylights etc. in accordance with the drawings, as specified here in and subject to the terms and conditions of the contract.

#### 15.2 GENERAL

- (a) Size of glass indicated on drawings are only approximate actual sizes required shall be determined by measuring all panels. Glass shall be without wave, distortion or bulbs.
- (b) For wooden Doors and Windows, where provided, glass shall be secured in place with Deodar wood beading.
- (c) All glass shall be of manufacture and quality approved by the consultant or Engineer. 5 mm thick glass should be used in doors and windows and 3 mm thick glass should be used in ventilators.

#### 15.3 ACCEPTANCE

Glass shall be protected against damage. After inspection any labels, paint smears and the glass shall be washed clean on both sides. Damaged or broken glasses shall be removed and replaced with new ones before acceptance at no additional cost.

#### 15.4 ROOF WATER PROOFING AND INSULATION

Providing and Supplying Heat & U/V resistant Protective Liquid Membrane Roof waterproofing water shield ZSAC-10/55 of M/s ZAHABIYA or MATRIX water stopper MT 22/6 in white colour etc. etc. complete as described in Nomen closure of BOQ.

## 16. PAINTING AND FINISHING

### 16.1 SCOPE OF WORK

The work covered in this section of the specifications consists of furnishing all plants, labour, equipment, appliances and materials and in performing all operations in connection with protective and general painting and finishing complete in strict

accordance with this section of the specifications and applicable drawings and subject to the terms and conditions of the contract.

### 16.2 GENERAL

The terms "Paints" as used herein means enamel paints Emulsion Paint, primers, colour washes, chalk washes etc. All colours shall be subject to the approval of the Consultants / Owner.

All Paints shall be of first class quality product made by an approved manufacturer ICI or equivalent approved and shall conform to the requirements of current British Standards specifications or ASTM standards.

16.3 All colours and shades shall be as directed by the Consultants / Owner. The colour of each coat of paint shall not be of a different shade from the following coat.

## 17. COOPERATION WITH OTHER TRADES

(a) All work under this section shall be coordinated with the work to be done as specified under other sections of the specifications.

(b) The contractor shall drill, tap, cut and fit the work included here in as required, to accommodate work of other trades in conjunctions with it.

## 18. SAMPLE

Samples of materials specified shall be submitted for approval when required by the Consultant /Owner.



SECTION – 8

LIST OF SPECIFIED MATERIAL

**LIAQUAT UNIVERSITY OF MEDICAL & HEALTH SCIENCES,**  
**JAMSHORO, SINDH.**

**“EXTERNAL DEVELOPMENT WORK FOR ESTABLISHMENT OF RESEARCH INSTITUTE**  
**OF ENDOCRINOLOGY AND DIABETES AT LUMHS, JAMSHORO”**

**LIST OF SPECIFIED MATERIAL.**

S.NO.	MATERIAL	BRANDNAME	MANUFACTURER	AGENCY /DISTRIBUTOR	SOURCE
1	ORDINARY PORTALAND /SULPHATE RESISTANCE CEMENT	LUCKYBRAND/ D.GKHAN/FALCON (or equivalent approved)			HYDERABAD
2	WHITE CEMENT	MAPLELEAFOR ANWARZEB (or equivalent approved)			HYDERABAD
3	CRUSHED STONE				ONGAR/NORRI ABAD
4	SAND				BOLHARI/NO RIABAD
5	STEEL(DEFORMED)	AMRELLI/ aaga /FFSTEEL/NAVENA (or equivalent approved)			HYDERABADSI NDH
6	FIRST CLASS BURNT BRICKS				
7	GLAZEDTILES		MASTER /SHABBIRTILES (or equivalent approved)		HYDERABAD
8	PORCELAIN TILES		SHABBIR /MASTER /GRANITE/SONEX (or equivalent approved)		HYDERABAD
9	ALUMINIUM DOORS/ WINDOWS		LUCKY/PAK CABLE (or equivalent approved)		MANUFACTURE RSUPPLY

SECTION – 9

BILL OF QUANTITIES

**SCHEDULE A (SCHEDULE OF PRICES)**

**External Development Work for Establishment of Research Institute of  
Endocrinology and Diabetes at LUMHS, Jamshoro**

Sr. #	DESCRIPTION	COST (RS.)
	<b>Total Tender Cost of Civil Work</b>	
	Part A Civil Work (Non Schedule Items)	=
	<b>Total Tender Cost (RS.)</b>	=

**Rupees in Words:**

**Contractor**

**DIRECTOR  
Works & Services**

## SPECIFIC WORKS DATA

### External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro

Part A Civil Work (Non Schedule Items)

BOQ's Item #	Item/Page	Description	Unit	Quantity	Rate (RS.)	Amount (RS.)
1	NSI	<b><u>SAND / EARTH FILLING</u></b> Supplying, filling, watering and compacting of sand bed (50% sand 50% Gravel) the required level below lean concrete, Filling shall be done in maximum layers of 12" loose thickness compacted by mechanical compactor upto Procter relative density of 98%, including the cost of compaction test as required by Engineer Incharge. Complete in all respect of as per drawings, specifications and directed by Engineer Incharge.	Cft	1,000,000		
2	NSI	<b><u>STONE SOLING</u></b> Providing and laying soling stones 4 inches to 6 inches under Footings, floors including packing with spawls and chips and consolidating compacting watering etc. complete.	Cft	100,000		
3	NSI	<b><u>LEAN 1:4:8</u></b> Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing of stone aggregate without shuttering)	Cft	12,500		
4	NSI	<b><u>PAVER BLOCK (197mm x 97mm x 60mm)</u></b> Providing, fixing and laying in position cement concrete paving blocks for flooring having size (197mm x 97mm x 60mm) with natural/ colors, having strength b/w 5000 psi to 6000 psi i/c filling the joints with hill sand / (Khaka) with 3" thick and laying in specified manner /pattern and design etc: complete as directed by Engineer Incharge. (Envicrete / Megnacrete / Banu Mukhar or equivalent)	Sft	25,000		
					Total Amount	

Contractor

**DIRECTOR**  
**Works & Services**

SECTION-10

FORM OF TENDER

# FORM OF TENDER

## **“External Development Work for Establishment of Research Institute of Endocrinology and Diabetes at LUMHS, Jamshoro”**

DIRECTOR

Works & Services,  
LUMHS, Jamshoro,  
Sindh.

Dear

Sir,

1. Having examined the instructions to Tenderers, Conditions of Contract, Special Stipulations, Appendices, Specifications, Bill of Quantities and Drawings for the construction, completion and maintenance of the above named works, we, the undersigned Tenderer, offer to construct, complete and maintain the whole of the said works in accordance with the said Conditions of Contract, Special Stipulations, Appendices, Specifications, Bill of Quantities and Drawings for the Tender Price of Pakistan Rupees \_\_\_\_\_

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2. Should a Notice of Award accepting this Tender be issued to us, we undertake;
  - a) To abide by and fulfill all the terms and provisions of the Conditions of Contract contained in the documents mentioned above.
  - b) To commence the works within 07 (Seven) days of receipt of the OWNER's written order to commence, and to complete and deliver all the works comprised in the contract on or before the expiry of 1(One) calendar months, after receipt of the said order to commence.
  - c) To sign within 14 (fourteen) days following the issue of the said Notice of Award, an Agreement in the form set out in this Tender with such alterations and additions thereto as you may require to adopt such Agreement to the circumstances of this tender, and for this purpose, to attend or to cause one or more representatives duly authorized by us under appropriate power(s) of attorney to attend your office.
3. We agree that this Tender shall remain valid for a period of 90 (ninety) days from the date set for opening the Tenders and it shall remain binding upon us and may be accepted by you at any time before the expiration of the said period.
4. We further agree to pay all costs towards the execution of the formal agreement including the cost of stamps.
5. We understand that unless and until a formal Agreement is prepared and executed, this Tender together with the Tender Documents and Letter of Award accepting this Tender, shall constitute abiding contract between us.

6. We also understand that you are not bound to accept the lowest or any Tender you may receive.
7. As a guarantee for the performance of the undertakings and obligations of this Tender, we submit herewith Earnest Money of equivalent to 2% of total tender cost of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) in the form of a Pay Order/Demand Draft No. \_\_\_\_\_ dated \_\_\_\_\_ of the \_\_\_\_\_ Bank Ltd, Branch \_\_\_\_\_ being a Scheduled Bank, made in your favour and made payable to you, without any reference to us, and valid for 90 (ninety) days from the date established for opening of Tenders.
8. We certify that we clearly understand the terms and conditions of agreement as explained in the Tender Documents.

WITNESSES

1. \_\_\_\_\_  
 \_\_\_\_\_

Name and Address  
 Of Tenderer \_\_\_\_\_

2. \_\_\_\_\_  
 \_\_\_\_\_

Title of Person  
 Signing the Tender \_\_\_\_\_

Seal \_\_\_\_\_