



**DESIGN, SUPPLY, INSTALLION, COMMISSIONING AND O & M OF  
PNEUMATIC TUBE CONVEYOR SYSTEM  
AT  
JAWAHARLAL INSTITUTE OF POSTGRADUATE MEDICAL EDUCATION & RESEARCH  
PUDUCHERRY**



**Tender no. HLL/ID/14/43 dated 28.06.2014 (Retender)**

**June 2014**

**HLL LIFECARE LIMITED  
Infrastructure Development Division  
“Adarsh” TC 6/1781, Vettamukku,  
Thirumala Post Office  
Thiruvananthapuram-695006  
Ph: 0471-2365872/73**

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**DISCLAIMER**

HLL Lifecare Limited, India (HLL) has prepared this document as internal consultant to Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), Puducherry to give bidders, background information on the Project. The information is provided to bidders on the terms and conditions set out in this RFP document and any other terms and conditions subject to which such information is provided.

This RFP document is not an agreement, is not an offer or invitation to any other party. The purpose of this RFP document is to provide interested parties with information to assist the formulation of their bid. The information is not intended to be exhaustive. Bidders are required to make their own inquiries and respondents will be required to confirm in writing that they have done so and they do not rely solely on the information in RFP.

The information is provided on the basis that it is non – binding on Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), or HLL Lifecare Limited, any of its authorities or agencies or any of their respective officers, employees, agents or advisors.

Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), reserves the right not to proceed with the Project or to change the configuration of the Project, to alter the timetable reflected in this document or to change the process or procedure to be applied. It also reserves the right to decline to discuss the Project further with any party submitting the Tender.

While HLL Lifecare Limited and JIPMER have taken due care in the preparation of the information contained herein and believe it to be accurate neither Jawaharlal Institute of Post Graduate Medical Education and Research (JIPMER), nor HLL Lifecare Limited, any of its authorities or agencies nor any of their respective officers, employees, agents or advisors gives any warranty or make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it.

No reimbursement of cost of any type will be paid to persons or entities submitting their Tender.

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**DEFINITIONS**

**“Engineer”** means the person(s) named by the Employer in the Contract or appointed from time to time by the Employer, who acts on behalf of the Employer under the contract.

**“Employer”** means JIPMER, which has invited bids for the project.

**“HLL”** means HLL Lifecare Limited, consultant to JIPMER for the project.

**“JIPMER”** means Jawaharlal Institute of Post-Graduate Medical Education and Research at Puducherry, India

**“MoHFW”** means Ministry of Health and Family Welfare, Government of India

**“Project”** means **DESIGN, SUPPLY, INSTALL, COMMISSION, OPERATE AND MAINTAIN A PNEUMATIC TUBE CONVEYOR SYSTEM** at JIPMER, Puducherry on a turnkey basis.

**“Site”** means the place where the above-mentioned project work is to be executed.

**“Tender”** or **“Bid”** shall mean the offer submitted by a Tenderer in accordance with this document for the above project.

**“Tenderer”** means a firm that has submitted its Tender of Bid for the Project.

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**SECTION I**

**1. NOTICE INVITING TENDER (NIT)**

Tender no. HLL/ID/14/43 dated 28.06.2014 (Retender)

**1.1 GENERAL**

**1.1.1 Jawaharlal Institute of Post-Graduate Medical Education and Research** invites sealed tenders from reputed Indian Firms for **DESIGN, SUPPLY, INSTALLATION, COMMISSIONING AND O & M OF PNEUMATIC TUBE CONVEYOR SYSTEM** at JIPMER, Puducherry.

**1.1.2 JIPMER** invites sealed tenders for the above-mentioned work (clause 1.1.1).

<b>Approximate cost of work</b>	Rs. 9 Crores (Rs. NINE Crores only)
<b>Tender Security amount</b>	Rs. 18 Lakhs (Rs. Eighteen lakhs only)
<b>Cost of Tender form (Non-refundable)</b>	Rs.10,404/- (Rs. Ten Thousand Only) payable by a Demand Draft in favour of “HLL Lifecare Limited” at Thiruvananthapuram
<b>Completion period of the Work</b>	12 Months (Twelve Months Only) from the date of issue of letter of acceptance
<b>Tender documents on sale</b>	From 28.06.2014 to 10.07.2014 (between 10.00 Hrs to 17.00 Hrs) on working days
<b>Last date for submission of queries/ Date and location of Pre-Bid conference</b>	10.07.2014 at Institute Council Hall , JIPMER campus, Puducherry.
<b>Last date for Issue of addendum</b>	14.07.2014
<b>Last Date &amp; time of Submission of Tender</b>	24.07.2014, up to 15.00 Hrs
<b>Date &amp; time of opening of Tender (Technical Package – Part I)</b>	24.07.2014, 15.30 Hrs

One set of tender documents (Non-transferable) can be obtained from the office of HLL Lifecare Limited, (A Government of India Enterprise), ID Division, Adarsh, TC 6/1718,Vettamukku, Thirumala P.O., Thiruvananthapuram - 695006. The Bid Documents can also be downloaded from the website of HLL Lifecare Limited at [www.lifecarehll.com](http://www.lifecarehll.com).. The cost of tender documents in the form of Demand Draft drawn in favour of HLL Lifecare Limited for an amount of Rs.10404/- (Rupees Ten Thousand Four hundred and four only) payable at Thiruvananthapuram must be furnished in a separate envelope along with the technical bid.

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**1.2 POINTS TO BE NOTED**

- 1.2.1 Works envisaged under this contract are required to be completed in all respects within the period of completion mentioned above.
- 1.2.2 Applicant should be an Indian firm and fulfill the criteria set out in para 2.1 to 2.3 of Section II, Instructions to Tenderers (ITT).
- 1.2.3 This tender is to be submitted in two parts i.e. **TECHNICAL PACKAGE** and **FINANCIAL PACKAGE**. Technical package is to be submitted in two parts, **Part-I** shall consist of information/details for the tenderer FOR ELIGIBILITY and **Part -II** shall be the Technical proposal.
- 1.2.4 Applicant must not have been blacklisted or deregistered by any govt. agencies or public sector undertaking during last 5 years.
- 1.2.5 The net worth of the firms during last three years should not be negative
- 1.2.6 Tender documents consist of:

**Volume 1**

- Notice Inviting Tender (NIT)
- Instructions to Tenderers (ITT) (Including Annexures)
- Special Conditions of Contract (SCC)
- Employer's requirements
- Master plan of JIPMER Campus

**Volume 2**

- General Conditions of Contract (GCC)

- 1.2.7 The Contract shall be governed by the documents listed in Para 1.2.6 above and relevant standards and specifications, which may be purchased from the market.
- 1.2.8 Tenderers may obtain further information in respect of these tender documents from the office of the Deputy Vice President (Technical), HLL Lifecare Limited, (A Government of India Enterprise), ID Division, Adarsh, TC 6/1718, Vettamukku, Thirumala P.O., Thiruvananthapuram - 695006
- 1.2.9 All Tenderers are hereby cautioned that tenders containing any material deviation or reservation as described in Clause 6.4 of "Instructions to Tenderers" and/ or minor deviation without quoting the cost of withdrawal shall be considered as non-responsive and shall be summarily rejected.
- 1.2.10 **The offers of Tenderers who fulfill the minimum requirements as specified in para 2.1 to 2.3 and para 6.5.1 of Section II (ITT), only shall be evaluated further.**

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1.2.11 JIPMER reserves the right to accept or reject any or all proposals without assigning any reasons, No tenderer shall have any cause of action or claim against the JIPMER for rejection of his proposal.

**For and on behalf of JIPMER  
Deputy Vice President (Tech.)  
HLL Lifecare Limited**

## **2. SCOPE OF WORK**

### **2.1 GENERAL**

#### **2.1 DESIGN, SUPPLY, INSTALLATION, COMMISSIONING AND O & M OF PNEUMATIC TUBE CONVEYOR SYSTEM at JIPMER, Puducherry**

### **2.2 WORK CONTENT**

#### **2.2.1 Brief Scope**

The project involves **design, supply, install, commission, operate and maintain a pneumatic tube conveyor system** at JIPMER.

The system shall cover the Old Hospital Buildings including OPD and ID wards, EMSD Block, Super Specialty Block, Women and Children Hospital and Regional Cancer Centre. Scope of work shall include all required ancillary structures, procurement, installation, commissioning of the system. The scope of contract shall also cover the operation and maintenance of the system for a period of 10 years on Annual O & M contract.

The work shall, inter-alia, include the following:

- i. Planning the system including detailed design and engineering.
- ii. Planning the routing of the tube network taking into account immediate future needs (buildings under construction).
- iii. System automation including necessary software.
- iv. Laying of communication & control network cables
- v. Any additions and alterations to the existing buildings for the installation of central controller, blowers and any other associated plant.
- vi. The system connecting the buildings shall use connecting corridors wherever possible. Otherwise the work shall include
  - a. Design & installation of supporting structure for the system if above ground.
  - b. Excavation, refilling and Re-instatement of the hard-scape areas in case of underground installation

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- vii. Getting approvals, permissions, NOC from the statutory / government agencies if required.
- viii. All aspects of quality assurance, including testing of equipment and other components of the work
- ix. Project Management to ensure completion of Project as per timelines
- x. Submission of the completion ('as-built') drawings and other related documents along with a soft copy any related software.
- xi. Making good any defect during the Defects Liability Period

**2.2.2 Design criteria to be specified with the proposal by the Tenderer**

The design of the Tenderer shall be of international standards and should be complete in all respects as per international best practices. Detailed design including the design criteria, codes and standards and specifications of the materials to be used for the design should be submitted by the Tenderer along with his proposal. Other documents as detailed in Employer's Requirements and Sub-clause 4.2.4 of Instruction to Tenderers should be submitted along with the design.

**2.2.3 Reference to the Standard Codes of Practice**

2.2.3.1 All Standards, Technical Specifications and Codes of practice referred to shall be latest editions including all applicable official amendments and revisions. The Contractor shall make available at site all relevant Indian Standard Codes of practice as applicable.

2.2.3.2 Wherever Indian Standards do not cover some particular aspects of design/ construction, relevant International Standards shall be referred to. The contractor shall make available at site such standard codes of practice.

2.2.3.3 In case of discrepancy among Standard codes of practice, Technical Specifications and provisions in Employer's Requirements, the order of precedence shall be as below:

- i) Provision in General Requirements of Employer's Requirements
- ii) Technical Specifications in Employer's Requirements,
- iii) Standard Codes of Practice.

In case of discrepancy in reference to Standard Codes of Practice, the order of precedence shall be BIS, IRC, BS, ASTM, DIN.

**2.2.4 Dimensions**

The levels, measurements and other information concerning the existing site as shown on the conceptual / layout drawings are believed to be correct, but the tenderer should



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verify them for himself and also examine the nature of the ground as no claim or allowance whatsoever shall be entertained on account of any errors or omissions and commissions in the levels or strata turning out different from what is shown on the drawings.

**2.3 TIME SCHEDULE**

The tenderer shall submit with the tender “Time Schedule” for completion of various portions of works. This schedule is to be within the overall completion period of 12 months. The detailed programme in the form of a Critical Path Method (CPM) network shall include all activities starting from design to completion.

**2.4 EXISTING MEDICAL FACILITIES AND UTILITIES**

- (i) The utilities shall be diverted with proper liaison and approval of the utility owning agencies. The utilities which cannot be diverted but require supporting, proper supporting shall be done so that they are not damaged along their branches. Precautions to be taken while handling the utilities are mentioned as under;
- (ii) Utilities shall not be damaged at any cost. If due to some or the other reason, a mishap occurs, it should be rectified immediately by the contractor at his own cost under intimation of HLL/JIPMER.
- (iii) The Contractor shall take care so that the ongoing activities are not disturbed in any manner whatsoever by the activities of the Contractor during the execution of the project.

The above instructions are only indicative, other precautions which are specified from time to time by the utility owning agencies shall be followed by the successful Tenderer at all times.

### **3. TENDER PRICES AND SCHEDULE OF PAYMENT**

#### **3.1 TENDER PRICES**

- a. Unless explicitly stated otherwise in the Tender Documents, the Contract shall be for the whole Work and payment shall be based on the milestones as accepted in the Contract.
- b. The design notes, calculations, specifications, dimensioned drawings and milestone schedules prepared by the tenderer in respect of technically acceptable proposal shall be for limited purpose of prima facie evaluation for determining its technical acceptability, price and construction time.
- c. Irrespective of the estimated quantities and /or dimensioned details for various items of work as furnished in the design notes, calculations, specifications or outline /dimensioned drawings accompanying the tender for the work, the successful tenderer shall carry out all changes, modifications or alterations that may, during the scrutiny of the detailed designs and working drawings, or during construction be considered necessary in the opinion of the Engineer for compliance with the Employer's Requirements.
- d. The Tenderer shall include in his quoted price all taxes (VAT, Service Tax), fees and other levies, payable by the tenderer under the Contract. JIPMER shall assist the Tenderer wherever feasible for getting custom duty exemption.
- e. The Payment shall be in accordance with the provisions of **Clauses 14.0 and 15.0** of the General Conditions of Contract (RFP Volume II).

#### **3.2 SCHEDULE OF MILESTONES FOR PAYMENTS**

<b>S NO.</b>	<b>Milestone</b>	<b>% of installation &amp; Indian items value</b>	<b>% of Imported Equipment value</b>
1	On approval of system design (advance)	25%	
2	On opening of LC by JIPMER with proof of payment		80%
3	Installation and successful commissioning of the system and Training of institute staff	50 %	15%
4	After completion of defect liability period	25%	5%
	<b>Total</b>	<b>100 %</b>	<b>100%</b>

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**Imported items :** The payment shall be paid through irrevocable, non-transferable Letter of Credit (LC) opened in favour of the supplier in a bank in his country and upon submission of Documents specified here under :

- (i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;
- (ii) Original and four copies of the negotiable clean, on-board Bill of Lading/ Airway bill , marked freight pre paid and four copies of non-negotiable Bill of Lading/Airway bill;
- (iii) Four Copies of packing list identifying contents of each package;
- (iv) Insurance Certificate and documents also to be submitted for payment of LC confirming that dispatch documents has already been sent to all concerned as per the contract within 24 hours;
- (v) Manufacturer's/Supplier's warranty certificate;
- (vi) Manufacturer's own factory inspection report and
- (vii) Certificate of origin by the chamber of commerce of the concerned country;
- (viii) Inspection Certificate for the despatched equipments issued by recognized/ reputed agency like SGS, Lloyd or equivalent (acceptable to the purchaser) prior to despatch.
- (ix) Certificate of origin
- (x) Goods receipt certificate by the ultimate consignee on receipt of goods at this site/warehouse.

The supplier shall make arrangements for insuring the goods against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the following manner: The insurance shall be in an amount equal to 110 percent of the CIF or CIP value of the Goods from "Warehouse to warehouse (final destination)" on "All Risks" basis including War Risks and Strikes.

i) In case of supply of domestic goods on Consignee site basis, the supplier shall be responsible till the entire stores contracted for arrival in good condition at destination. The transit risk in this respect shall be covered by the Supplier by getting the stores duly insured. The insurance cover shall be obtained by the Supplier and should be valid till installation, testing and commissioning and handing over of the equipment.

ii) in case of supply of the imported goods on DDP Named place of Destination Basis, the additional extended Insurance (local transportation and storage) would be borne by the Supplier from the port of entry to the consignee site for a period including 3 months beyond date of delivery.

If the equipment is not commissioned and handed over to the consignee within stipulated period, the insurance will be got extended by the supplier at their cost till the successful installation, testing, commissioning and handing over of the goods to the consignee. In case the delay in the installation and commissioning is due to handing over of the site to the supplier by the consignee, such extensions of the insurance will still be done by the supplier, but the insurance extension charges at actuals will be reimbursed.

## **SECTION-II**

### **INSTRUCTIONS TO TENDERERS (ITT)**

#### **1.0 GENERAL**

##### **1.1 The Proposal**

JIPMER (hereinafter also referred as Employer) invites sealed tenders from applicants for **design, supply, installation, commissioning, and O & M of a pneumatic tube conveyor system** at JIPMER, on turnkey basis.

The tender papers consist of the documents as specified in Clause 1.2.6 of NIT, along with their Annexures, appendices, addenda and errata if any.

Tenderers should procure relevant standards and specifications referred from the market.

Tenders shall be prepared and submitted in accordance with the instructions given herein.

##### **1.2 Address for Communication**

Deputy Vice President (Tech.)  
HLL Lifecare Limited,  
Infrastructure Development Division,  
“Adarsh”, T.C 6/1718(1),  
Vettamukku, Thirumala PO,  
Thiruvananthapuram- 695 006.  
Phone - 0471 2365872/73  
Fax – 0471 2368144

##### **1.3 Some essential data/requirements pertaining to this Tender along with reference to Clause Number of this Volume where full details have been given are detailed below (also refer Clause 1.2 of NIT):**

- a. Date and time of opening of tender (Clause 1.1.2 of NIT) is 03.06.2014, 15:30 Hrs.
- b. Period for which the tender is to be kept valid (Clause 4.7), 120 **days** from the last date of submission of Tender.
- c. Period of commencement of work (Form A), one week of signing of the Contract Agreement.

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- d. Defects Liability Period (Form A) **12 months** from the date of issue of “Taking over Certificate”.
- e. Period of completion (Form A) **12 Months** from the date of issue of “Letter of acceptance”.
- f. Validity Period for Performance Security (Form D) **6 months** from the date of expiry of “Defects Liability Period”

**2.0 ELIGIBILITY REQUIREMENTS**

- 2.1 The intending bidders should have satisfactorily set up on Turnkey basis a pneumatic tube conveyor system for Hospitals and/or Diagnostic Centers in India during the last five years ending last day of the month of **March 2014** according to any one of the following requirements.
  - a) Three systems with 20 stations each
  - b) Two systems with 30 stations each or
  - c) One system with 40 stations.
- 2.2 The average annual turnover of the firm should not be less than Rs. 3.00 Crores in the last three consecutive financial years ending March 31, 2014. The Firm should not have incurred loss for more than two years during the last five financial years, ending March 31, 2014. Financial data for previous 5 years shall be submitted as per format in Form T V.
- 2.3 The firm shall have a solvency of Rs. 4.00 Crores. Latest Bank Solvency Certificate for amount of Rs. 4.00 Crores from Bank issued in the current financial year shall be submitted by the firm. The Indian agency may provide Bank solvency certificate for Rs.1 crore and the balance may be provided by the OEM
- 2.4 All tenders submitted shall include the following information:
  - 2.4.1 General information of the Tenderer shall be furnished in Form T-I. Copies of original documents defining the constitution and legal status, certificate of registration and ownership, principal place of business of the company, corporation, firm or partnership shall also be required to be furnished.
- 2.5 The Tenderers to qualify for award of Contract shall submit a written power of attorney authorizing the signatory(ies) of the tender to commit the Tenderer.
- 2.6 The authorized signatory of the Tenderer shall sign each page of tender. Power of Attorney in favour of the signatory will be required to be furnished as detailed in Clause 4.10

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- 2.7 Cancellation or creation of a document such as Power of Attorney, Partnership deed, Constitution of firm etc., which may have bearing on the Tender/Contract shall be communicated forthwith in writing by the Tenderer to JIPMER, through HLL
- 2.8 Each Tenderer, or any associate will be required to confirm and declare in the tender submittal that no agent, middleman or any intermediary has been, or will be, engaged to provide any services, or any other items of work related to the award and performance of this contract. They will have to further confirm and declare in the submittal that no agency commission or any payment, which may be construed as an agency commission, has been, or will be paid and that tender price will not include any such amount.

**3.0 TENDER DOCUMENTS**

**3.1.1 CONTENTS OF TENDER DOCUMENTS**

- 3.1.2 The Tenderer is expected to examine carefully all the contents of the tender documents as mentioned in Sub-clause 1.1 including instructions, conditions, forms, terms, Employer's requirements and take them fully into account before submitting his offer. Failure to comply with the requirements as detailed in these documents shall be at the Tenderers own risk. Tenders which are not responsive to the requirements of the tender documents will be rejected.

**3.2 CLARIFICATION ON TENDER DOCUMENTS**

- 3.2.1 While all efforts have been made to avoid errors in the drafting of the tender documents, the Tenderer is advised to check the same carefully. No claim on account of any errors detected in the tender documents shall be entertained.
- 3.2.2 A prospective Tenderer requiring any clarification of the tender documents may notify the Officer-in-charge in writing or by Tele-fax at the Officer-in-charge's mailing address indicated in Clause 1.2 of ITT. The Officer-in-charge will respond in writing to any request for clarification which he receives prior to dead line mentioned in Clause 1.1.2 of NIT. Written copies of the Officer-in-charge's response (including an explanation on the query but without identifying the source of the inquiry) will be sent to all prospective Tenderers who have received the tender documents. Only written communications/clarifications can be considered as valid.
- 3.2.3 **A pre bid conference will be held on the date specified in Clause 1.1.2 of NIT at "Institute Council Hall at JIPMER Puducherry". A site visit will precede the conference on the same day and the prospective bidders will be shown around the Hospital for understanding the location, layout and the available power and data lines. Hard copies of Typical Layout of each building will be provided.**

- 3.2.4 **The intending bidders should use this opportunity to gather all necessary data required for preparation of their bids.**

### **3.3 AMENDMENT TO TENDER DOCUMENTS**

- 3.3.1 At any time prior to the deadline for the submission of tenders, JIPMER may, for any reason, whether at its own initiative or in response to a clarification or query raised by a prospective Tenderer, modify the tender documents by an amendment.
- 3.3.2 The said amendment in the form of an addendum will be sent to all prospective Tenderers who have received the tender documents, on or prior to last date mentioned in Clause 1.1.2 of NIT. This communication will be in writing or by Tele-fax and the same shall be binding upon them. Prospective Tenderers should promptly acknowledge receipt thereof by Tele-fax to the Officer-in-charge.
- 3.3.3 In order to afford prospective Tenderers reasonable time for preparing their tenders after taking into account such amendments, JIPMER may, at his discretion, extend the deadline for the submission of tenders in accordance with Clause 1.1.2 of NIT.

### **4.0 PREPARATION OF TENDERS**

#### **4.1 BIDDERS' RESPONSIBILITY AND SITE VISIT**

- 4.1.1 The Tenderer is solely responsible for the details of his bid and the preparation of bids. In no case shall JIPMER/HLL be responsible for any part of the tender documents submitted by him. Any Site information given in this tender document is for guidance only. The Tenderer is advised to visit and examine the Site of Works and its surroundings at his/their cost and obtain for himself on his own responsibility, all information that may be necessary for preparing the tender and entering into a Contract.
- 4.1.2 Irrespective of whether the Tenderers have attended the pre bid conference or not, they shall be deemed to have inspected the Site and its surroundings beforehand and taken into account all relevant factors pertaining to the Site in the preparation and submission of the Tender.

#### **4.2 DOCUMENTS COMPRISING THE TENDER**

##### **TECHNICAL PACKAGE**

- 4.2.1 **The technical package, clearly labeled as “TECHNICAL PACKAGE”, has to be submitted in two parts, Part-I shall consist of information of applicants and Part -II is the Technical proposal.**

**Part –I shall comprise the followings:**

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- a. Covering letter for the Bid
- b. Checklist for the enclosed documents in the format as appendix 1
- c. Tender Security in original in a separate sealed and duly marked “Tender Security” envelope in the format attached as Form B,
- d. Income tax clearance certificate for the last five years
- e. Attested Copy of Power of Attorney (in favour of the Authorised Signatory of the Tenderer) to submit tender,
- f. Relevant Experience for the projects
- i. Length of time in business in the form attached as Form T-I
- ii. Total number of **PTS systems installed Hospital or Diagnostic centres** (along with details of the number of stations and their value) completed successfully on turn-key basis during the last five years by the Tenderer in the format attached as Form T-II
- iii. Performance certificate from client in the Form T-VI in respect of Works above
- g. Financial Data for the past five years
  - i. Net Working Capital in the form T-V
  - ii. Net cash flow in the Form T-V
  - iii. Annual Turnover from similar design and build projects in the form T-V

The Tenderer should validate the data provided as above using suitable documentary evidence such as client certificates, audited balance sheets, annual reports etc clearly giving the reference to the evidence in front of the relevant portion.

- h. Technical and organizational capability
  - i. Number of Technical staff proposed for this project in the Form T-III
  - ii. Academic qualification of the staff in the Form T-III
  - iii. Experience of the proposed staff in the Form T-III

4.2.2 In addition to above, following information shall also be furnished in Part-I of technical package:

- (a) An organization chart with assignment of each key staff member (identified by name), duration & timing together with clear description of the responsibilities of each key staff member within the overall work programme. The minimum level of supervision and qualification/experience of Site-staff is given under Annexure – A.



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- (b) The name, background and professional experience of each key staff member to be assigned to the project, with particular reference to his experience of a nature similar to that of the proposed assignment. The majority of the key staff shall be regular members of the firm for at least six months (CV format in Form T-III).
- 4.2.3 The tenderer shall furnish details of agency/subcontractor proposed to be hired for the Construction Work as well as those available as on date in Part I of technical package.

**4.2.4 Part –II shall comprise the followings:**

**(a) Tender documents as listed in Clause 1.2.6 of NIT**

**(b) Technical Proposal**

The proposal should cover in detail the following:

- i. Understanding and comprehension of the work involved.
- ii. **Details of the System Manufacturer (of international repute) such as;**
  - a) Number of years in PTS manufacturing & installations**
  - b) Number of installations world wide**
  - c) Annual financial turnover for the last three years**
- iii. The general approach and methodology proposed for carrying out the services covered in the Scope of Work, including such detailed information as deemed relevant. Apart from above, contractor shall give details and numbers of equipment including their source, to be mobilized for the project with an assurance that equipment mobilized would be able to conduct work as per specifications in stipulated time schedule.
- iv. Detailed work plan, documents mentioned in Clause 2.2.3 of NIT, master plan and design of the project containing the following
  - a) Space Requirements
  - b) Service Requirements (Area Wise), Structural Systems etc.
  - c) Standards and specifications being followed in the design and for materials to be used in a consolidated tabular form
  - d) Bill of Quantities (un-priced)
- v. List of vendors (other than the System manufacturers) from whom the materials and equipment are planned to be procured in a consolidated table.
- vi. The details of the concept and technology to be used

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- vii. A program implementation schedule with broad list of activities, timelines and milestones (Hard and soft copy). A detailed overall work programme and a bar chart indicating the duration and timing of all major activities. Bar chart shall be made showing the activity to be performed for the project along with duration of each activity on a weekly basis.
  - viii. A detailed cash flow bar chart indicating the project expenses along with duration on a fortnightly basis.
  - ix. Proposed quality plan as per requirements of ISO: 9001:2008
- 4.2.5 No information relating to financial terms of services should be included in the Technical Proposal.

**FINANCIAL PACKAGE**

- 4.2.6 The financial package, clearly labeled as “ FINANCIAL PACKAGE” will contain the following:
- i. Form of tender and Appendix thereof (Form A).
  - ii. Financial Bid of the Tenderer as per Form C.
- 4.2.7** The financial proposal should be separately completed and submitted in a separate sealed envelope in the Format prescribed in Form C. The final prices shall be entered in the Form of Tender. These prices should include all costs associated with the contract.
- 4.2.8 Documents to be submitted by the Tenderer under technical and financial packages have been described under the respective Clauses 4.2. This list of documents has been prepared mainly for the convenience of the Tenderer and any omission on the part of JIPMER shall not absolve the Tenderer of his responsibility of going through the various clauses in the Tender Documents including the specifications and to submit all the details specifically called for (or implied) in those clauses.
- 4.2.9** All documents issued for the purposes of tendering as described in Clause 1.1, and any amendments issued in accordance with Clause 3.3 shall be deemed as incorporated in the Tender.

**4.3 TENDER PRICES**

- 4.3.1 The Tenderer is required to quote for all the items as per tender documents.
- 4.3.1 The Tenderer shall quote his price in Form-C (Format for Financial Bid). The total price quoted should be final and should be for undertaking the entire project in all respects as per the RFP document.**

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4.3.2 Prices quoted by the Tenderer, will include all tax liabilities, applicable Labour Cess and the cost of insurance to this contract. There will be no variation in the Contract Price quoted by the Tenderer on any account.

4.3.3 The Tenderer shall keep the contents of his tender and rates quoted by him confidential.

4.3.4 The Tenderer shall utilize Indian labour, staff and materials to the maximum extent possible in execution of Works.

**4.4 COST OF TENDERING**

4.4.1 The Tenderer shall bear all costs associated with the preparation and submission of his tender and JIPMER/HLL will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the tendering process.

**4.5 LANGUAGE OF TENDER**

All tender documents shall be in English.

**4.6 CURRENCY OF THE TENDER**

Tender prices shall be quoted in Indian Rupees only.

**4.7 TENDER VALIDITY**

4.7.1 The tender shall remain valid and open for acceptance for a period of 90 days from the date of opening of the tenders.

4.7.2 In exceptional circumstances, prior to expiry of the original tender validity period, JIPMER may request the Tenderers for a specified extension in the period of validity. The request and the response thereto shall be made in writing or by Tele-fax. The Tenderer shall not be required or permitted to modify his tender but shall be required to extend the validity of his tender security correspondingly.

**4.8 TENDER SECURITY**

4.8.1 The Tenderer shall furnish, as tender security, an amount as mentioned in Clause 1.1.2 of NIT.

4.8.2 The tender security will be in the form of a “Demand Draft in favour of HLL Lifecare Ltd payable at Thiruvananthapuram” or a Bank Guarantee from a Scheduled Commercial bank in India acceptable to the Employer. The format of the Bank Guarantee shall be generally in accordance with the sample form of tender security (Form B) included in this volume of tender documents. Other formats may be permitted subject to the prior approval of JIPMER/HLL. Bank guarantees shall be irrevocable and operative for a period not less than 30 days beyond the validity of the tender (i.e. 120 days from the last date of tender). The Tender Security shall be endorsed/pledged

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in favour of HLL and shall be submitted in a separate envelope super scribed “Tender security for *design, supply, installation, commissioning, and O & M of a pneumatic tube conveyor system at JIPMER, Puducherry*”.

4.8.3 Any tender not accompanied by an acceptable tender security will be summarily rejected by the JIPMER/HLL and shall be treated as non-responsive.

**4.8.4** The tender securities of unsuccessful Tenderers shall be discharged/returned by JIPMER/HLL as promptly as possible but not later than 30 days after the expiration of the period of tender validity as defined in Clause 4.7.

4.8.5 The tender security of the successful Tenderer shall be returned upon the Tenderer executing the Contract Agreement and the required performance guarantee for performance, as mentioned in Clause 8.0.

4.8.6 The tender security shall be forfeited:

- a. if a Tenderer withdraws his tender during the period of tender validity, or
- b. if the Tenderer does not accept the correction of his tendered price in terms of Clause 6.6, or
- c. in the case of a successful Tenderer, if he fails to :
  - i. furnish the necessary performance guarantee for performance as per Clause 8.0 and/or
  - ii. enter into the Contract within the time limit specified in Clause 7.5

4.8.7 No interest will be payable by JIPMER/HLL on the tender security amount cited above.

**4.9 INCOME TAX CLEARANCE**

The Tenderer shall provide income tax clearance certificate for the past five years in Part 1 of the technical bid.

**4.10 POWER OF ATTORNEY**

Power of Attorney duly notarized and on a stamp paper of an appropriate value, issued and signed by the member authorizing the person signing the tender documents to sign documents, make corrections/ modifications and interacting with JIPMER/HLL and acting as the contact person shall be submitted along with Part 1 of the technical bid.

**4.11 FORMAT AND SIGNING OF TENDERS**

4.11.1 The tender documents (technical package Part 1 and 2 and financial package) shall be stamped and signed on all pages by a person duly authorized to sign the tender documents. The Tenderer shall also submit a power of attorney authorizing the person signing the documents in accordance with Clause 4.10 of the Instruction to Tenderers.

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- 4.11.2 Entries to be filled in by the Tenderer shall be typed or written in indelible ink.
- 4.11.3 The complete tender shall be without alterations, overwriting, interlineations or erasures except those to accord with instructions issued by JIPMER/HLL, or as necessary to correct errors made by the Tenderer. The person or persons signing the tender shall initial all amendments/corrections.
- 4.11.4 All witnesses and sureties shall be persons of status and probity and their full names, occupations and addresses shall be written below their signatures.

**5 SUBMISSION OF TENDERS**

**5.1 SEALING AND MARKING OF TENDERS**

- 5.1.1 The Tenderer shall follow the procedure as indicated below:
- 5.1.2 Each tender will be submitted in two sets one marked “Original” and the other marked “Copy” (Copy should be photocopy of ‘original’).
- 5.1.3 Each set containing the two packages, TECHNICAL PACKAGE and FINANCIAL PACKAGE shall be sealed in two separate envelopes clearly marked as “Original” and “Copy’. The two envelopes shall be wrapped in an outer envelope addressed to The Deputy Vice President (Tech.), HLL Lifecare Limited, Infrastructure Development Division, “Adarsh”, TC.6/1718 (1), Vettamukku, Thirumala P.O, Thiruvananthapuram – 695 006 duly super scribing on top, tender number, name of work and time and last date for submission. The envelope should also bear the name and address of the Tenderer.
- 5.1.4 The contents of Technical Package and Financial Package shall be as detailed under Clause 4.2 herein.
- 5.1.5 No responsibility will be accepted by the JIPMER/HLL for the misplacement or premature opening of a tender, not sealed or marked as per aforesaid instructions.

**5.2 SUBMISSION OF TENDERS**

**5.2.1 Tenders should be submitted to:**

The Deputy Vice President (Tech.),  
HLL Lifecare Limited,  
Infrastructure Development Division,  
“Adarsh”, T.C 6/1718(1), Vettamukku,  
Thirumala PO, Thiruvananthapuram- 695 006

The last date for submission of completed tenders is given in Clause 1.1.2 of NIT. The JIPMER/HLL may, at their discretion, extend this date for the submission of tender by amending the Tender Documents in accordance with Clause 3.3, in which case all

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rights and obligations of the JIPMER/HLL and the Tenderer previously subject to the original date shall thereafter be subject to the new deadline as extended. If such nominated date for submission of tender is subsequently declared as a Public Holiday, the next official working day shall be deemed as the date for submission of tender.

5.2.2 Tenders shall be submitted by hand or through registered post or courier service at the address mentioned in Sub Clause 5.2.1. JIPMER/HLL shall not take any cognizance and shall not be responsible for delay/loss in transit or non-submission of the tender in time.

5.2.3 Tenders sent telegraphically or through other means of transmission (Tele-fax etc.), which cannot be delivered in a sealed envelope shall be treated as defective, invalid and shall stand rejected.

**5.3 LATE TENDERS**

Any tender received in Office of the **Deputy Vice President (Tech.)**, after the deadline prescribed for submission of tenders in Clause 1.1.2 of NIT herein will be returned unopened to the Tenderer.

**6 TENDER OPENING AND EVALUATION**

**6.2 TENDER OPENING**

6.1.1 The JIPMER/HLL will open the Tenders in the presence of Tenderers or their representatives who choose to attend on date & time as mentioned as per Clause 1.1.2 of NIT in the office of The Deputy Vice President (Tech.), HLL Lifecare Limited, Infrastructure Development Division, “Adarsh”, T.C 6/1718(1), Vettamukku, Thirumala PO, Thiruvananthapuram- 695 006. If such nominated date for opening of Tender is subsequently declared as a Public Holiday, the next official working day shall be deemed as the date of opening of the tender. The Tender of any Tenderer who has not complied with one or more of the foregoing instructions may not be considered.

6.1.2 On opening of the main Tender envelopes, it will be checked if they contain Technical (Part-I & Part-II separately) and Financial Packages.

6.1.3 Technical Package – Part I of the Tender will thereafter be opened. They will be examined to see if they are complete, whether the requisite Tender security has been furnished, whether the documents are in order. If the documents do not meet the requirements of JIPMER the Tender Opening Authority will record a note accordingly and the said Tenderer's Technical Package - Part II and Financial Package will not be considered for further processing.

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- 6.1.4 The Tenderers name, the presence or absence of the requisite tender security and such other details as JIPMER or his authorized representative, at his discretion, may consider appropriate will be announced at the time of tender opening.
- 6.1.5 The sealed Technical Package – Part II of all responsive tenders will be opened on the date and time to be fixed after the evaluation of the eligibility documents, submitted by the tenderers.
- 6.1.6 The sealed financial packages of all responsive tenders will be opened on date and time to be fixed after the technical evaluation, when the lump sum prices quoted by the tenderers shall be read out.**

**6.2 PROCESS TO BE CONFIDENTIAL**

- 6.2.1 Except the public opening of Tenders, information relating to the examination, clarification, evaluation and comparison of tenders and recommendations concerning the award of Contract shall not be disclosed to Tenderers or other persons not officially concerned with such process.
- 6.2.2 Any effort by a Tenderer to influence JIPMER/HLL in the process of examination, clarification, evaluation and comparison of tenders and in decisions concerning award of contract, may result in the rejection of the Tenderer's tender.

**6.3 CLARIFICATION OF TENDERS**

- 6.3.1 Technical evaluation of technical packages submitted by Tenderers shall be undertaken based on details submitted in the technical package only. No clarification/additional information in this regard will be sought from Tenderers. Tenderer shall not be required to submit their own, additional information or material subsequent to the date of submission and such material if submitted will be disregarded. It is therefore essential that all the details are submitted by Tenderer accurately and specifically in their technical package avoiding vague answers. However, JIPMER/HLL reserves the right to ask any clarification from Tenderers for details submitted with technical package if it so desires during the technical evaluation.
- 6.3.2 To assist in the examination, evaluation and comparison of Financial package, JIPMER/HLL may ask Tenderers individually for clarification of their tenders, including breakdowns of prices. The request for clarification and the response shall be in writing or by Tele-fax but no change in the price or substance of the tender shall be sought, offered or permitted except as required to confirm correction of arithmetical errors discovered by the Officer-in-Charge during the evaluation of tenders in accordance with Clause 6.5 herein. JIPMER/HLL reserves the right to make a BOQ optimised from

those submitted by various bidders and ask the bidders to revise their financial bid if they choose to and open the revised financial bids on a specified date and time..

#### **6.4 DETERMINATION OF RESPONSIVENESS**

6.4.1 Prior to the detailed evaluation of tenders, JIPMER/HLL will determine whether each tender is responsive to the eligibility requirements (Technical Package I) and the employer's requirements (Technical Package II) of the tender documents

**6.4.2** For the purpose of this Clause, a responsive tender for opening of the Technical Package II, is one which has paid the application fees, is accompanied by the Tender Security, signed on all pages and meets the eligibility criteria as set out in Clause 2 above. Technical Package II shall be considered responsive if it conforms to the employer's requirements and all other terms, conditions and specifications of the tender documents without material deviation or reservation. "Deviation" may include exceptions, exclusions & qualifications. A material deviation or reservation is one which affects in any substantial way the scope, quality, performance or administration of the works to be undertaken by the Tenderer under the Contract, or which limits in any substantial way, JIPMER's rights or the Tenderers obligations under the Contract as provided for in the Tender documents and / or is of an essential condition, the rectification of which would affect unfairly the competitive position of other Tenderers presenting substantially responsive tenders at reasonable price.

**6.4.3** If a tender is not substantially responsive to the requirements of the tender documents or if the construction methods proposed by the Tenderer are considered impracticable, it will be rejected by JIPMER, and will not subsequently be permitted to be made responsive by the Tenderer by correction or withdrawal of the non-conformity or infirmity. The decision of the JIPMER/HLL as to which of the tenders are not substantially responsive or have impractical / defective design or construction technology shall be final.

#### **EVALUATION OF TENDER**

6.4.4 (a) The Tenderers should submit the details as per 4.2.1 and should meet the minimum requirements as per Part-I of technical package.

(b) JIPMER will, keeping in view the contents of Clause 6.4, carry out technical assessment of submitted technical proposals to determine that the Tenderer has a full comprehension of the work of the contract. In case the Tenderer's technical submittal is found non-complaint with the requirements of the project the same is liable to be



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rejected. This process is to assure that only technically acceptable proposals are considered for the work.

6.4.5 The evaluation of Financial proposals by JIPMER/ HLL will take into account, in addition to the tender amounts, the following factors:

- a. Arithmetical errors corrected by JIPMER/HLL in accordance with Clause 6.6
- b. Such other factors of administrative nature as JIPMER/HLL may consider to have a potentially significant impact on contract execution, price and payments, including the effect of items or rates that are unbalanced or unrealistically priced.

6.4.6 Offers, deviations and other factors, which are in excess of the requirements of the tender documents or otherwise and will result in the accrual of unsolicited benefits to JIPMER, shall not be taken into account in tender evaluation.

6.4.7 Price adjustment provisions applicable during the period of execution of the contract shall not be taken into account in tender evaluation.

6.4.8 Evaluation of financial offer will be based on price quoted by the Contractor. Any subsequent alteration in prices shall not be given any cognizance.

## **6.5 CORRECTION OF ERRORS**

6.5.1 JIPMER/HLL for any arithmetical errors in computation and summation will check tenders determined to be technically acceptable during Financial evaluation. Errors will be corrected by the JIPMER/HLL as follows:

- a. Where there is a discrepancy between amounts in figures and in words, the amount in words will govern

6.5.2 If a Tenderer does not accept the correction of errors as outlined above, his tender will be rejected and the tender security forfeited.

## **7 AWARD OF CONTRACT**

### **7.1 AWARD CRITERIA**

7.1.1 Subject to Clause 6.5, JIPMER/HLL will award, the Contract to the Tenderer, whose tender has been determined to be substantially responsive, complete and in accordance with the tender documents, and whose total evaluated price for undertaking the entire project detailed in Scope of work (clause 2.1 to 2.4 of NIT) and Employer's Requirements of RFP Document is the lowest.

7.1.2 If the financial bids of both parties are equal, then the bidders shall be asked to resubmit the financial bid.

## **7.2 EMPLOYER'S RIGHT TO ACCEPT ANY TENDER AND TO REJECT ANY OR ALL TENDERS**

Notwithstanding Clause 7.1, JIPMER/HLL reserves the right to accept or reject any tender, and to annul the tender process and reject all tenders, at any time prior to award of Contract, or to divide the Contract between/amongst Tenderers without thereby incurring any liability to the affected Tenderer or Tenderers or any obligations to inform the affected Tenderer or Tenderers of the grounds for JIPMER's action.

## **7.3 NOTIFICATION OF AWARD**

7.3.1 Prior to the expiry of the period of tender validity prescribed by the JIPMER/HLL, HLL will notify the successful Tenderer by Tele-fax or e-mail, to be confirmed in writing by registered post/ by courier, that his tender has been accepted. This letter (hereinafter and in the Conditions of Contract called 'the Letter of Acceptance') shall name the sum which JIPMER will pay to the Contractor in consideration of the execution, completion, maintenance and guarantee of the works by the Contractor as prescribed by the Contract (hereinafter and in the conditions of Contract called 'the Contract Price'). The Letter of Acceptance will be sent to the successful tenderer. No correspondence will be entertained by JIPMER/HLL from the unsuccessful Tenderers.

7.3.2 The Letter of Acceptance shall constitute a part of the contract.

7.3.3 Upon submission of Performance Security by the successful Tenderer as per clause 8.0, JIPMER/HLL will promptly notify the unsuccessful Tenderers and discharge / return their tender securities.

## **7.4 SIGNING OF AGREEMENT**

7.4.1 JIPMER/HLL shall prepare the Agreement in the Proforma (Form E) included in this Document, duly incorporating all the terms of agreement between the two parties. Within 30 days from the date of issue of the Letter of Acceptance the successful Tenderer will be required to execute the Contract agreement. The performance guarantee should be submitted immediately after issue of letter of acceptance but not later than 30 days of issue of letter of acceptance. One copy of the Agreement duly signed by JIPMER/HLL and the Contractor through their authorized signatories will be supplied by JIPMER/HLL to the Contractor.

7.4.2 Prior to signing of the Contract Agreement, the successful Tenderer shall submit Performance Security within a period of 30 days from the date of issue of the Letter of Acceptance:

## **8 PERFORMANCE SECURITY**

- 8.1.1** The successful Tenderer shall furnish to HLL a security in the form of a bank guarantee for an amount of 5% of the total Contract Price, in accordance with Clause 4.2 of the General Conditions of Contract. The Bank Guarantee has to be from a Scheduled Commercial bank based in Indian and for this purpose the Form of Performance Security (Form-D) provided in this Volume shall be used. The Performance Security shall be furnished within the time limit specified in Sub-clause 7.4.2. **Additionally, Security deposit at the rate of 5% shall be recovered from the running account bills. The security deposit shall be returned after satisfactory commissioning of the system.**
- 8.1.2** Failure of the successful Tenderer to lodge the required Performance Security shall constitute sufficient grounds for the annulment of the award of Contract and forfeiture of the tender security, in which event JIPMER may make the award to the next lowest evaluated Tenderer.

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**APPENDIX I**

**CHECK LIST OF DOCUMENTS TO BE SUBMITTED WITH THE TENDER**

**COMPILED FROM THE PROVISIONS IN THIS VOLUME**

Sl. No.	Document	No. of sets to Be submitted	Reference to Clause No. of "Instructions to Tenderers"	Page no.
<b>TECHNICAL PACKAGE part 1</b>				
1.0	Covering letter	(Original)	4.2	
2.0	Tender security (Form B) in separate sealed envelope	(Original & Copy)	4.8	
3.0	Income tax Clearance certificate	(Original)	4.9	
4.0	Power of attorney for individuals signing on behalf of Company/Firm	(Original & Copy)	4.10	
5.0	Experience Data- Form T-I & T-VI	(Original & Copy)	4.2	
6.0	Financial Data- T-V & T-II	(Original & Copy)	4.2	
7.0	Technical and organizational Data – T-III	(Original & Copy)	4.2	
8.0	Organizational Chart	(Original & Copy)	4.2	
<b>TECHNICAL PACKAGE part 2</b>				
9.0	Tender documents	(Original)	4.2	
10.0	Technical Package Part- I & Part –II	(Original & Copy)	4.2	
<b>FINANCIAL PACKAGE COMPRISING OF:</b>				
11.0	Form of Tender and Appendix thereof (Form-A)	(Original & Copy)	4.2	
12.0	Format for Financial Bid (Form C)	(Original & Copy)	4.2	

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**INDEX ON  
PROFORMA OF FORMS**

**1. PROFORMA OF FORMS – GENERAL**

(Items (iv) & (v) applicable only for successful Tenderers)

	<b>Descriptions</b>	<b>FORM</b>
I.	Form of Tender with Appendix	A
ii.	Form of Bank Guarantee for Tender Security	B
iii.	Format for Financial Bid	C
iv.	Form of Performance Security (Guarantee) by Bank	D
v.	Form of Contract Agreement	E

**2. PROFORMA OF FORMS – QUALIFICATION PARTICULARS**

	<b>Descriptions</b>	<b>FORM</b>
i.	General Information	T-I
ii.	Experience Record - Number of Similar Projects	T-II
iii.	Personnel Proposed for the Project	T-III
Iv	Financial Data- Value of hospital work done during last fiveT-IV years	
V	Financial data for assessment of Net Working Capital, NetT-V Worth, Profit etc.	
Vi	Performance Reports of Works	T-VI
vii.	Desired Organizational structure	Annexure A

**FORM OF TENDER**

Note : i. The Appendix forms part of the Tender

ii. Tenderers are required to fill up all the blank spaces in this form of Tender and Appendix.

Name of Work : \_\_\_\_\_ (As mentioned under Clause 1.1.1 of NIT)

To,

**The Deputy Vice President (T),  
HLL Lifecare Limited,  
Infrastructure Development Division,  
“Adarsh”, T.C 6/1718(1),  
Vettamukku, Thirumala PO,  
Thiruvananthapuram- 695 006**

1. Having visited the Site and examined the General as well as Special conditions of contract, Employer's Requirements, Notice Inviting Tenders, Instructions to Tenderers, Preliminary Drawings and Addenda for the execution of above named works, we the undersigned, offer to execute and complete such works and remedy defects therein in conformity with the said Conditions of Contract, Employer's Requirements, NIT, ITT and Addenda for the sum of

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(Amount in figures and words) for **design, supply, installation, commissioning, and O & M of a pneumatic tube conveyor system at JIPMER.**

2. We acknowledge that the Appendix forms an integral part of the Tender.
3. We undertake, if our Tender is accepted, to commence the works within one week of signing the Contract Agreement to commence and to complete the whole of the Works comprised in the Contract within **12 months** calculated from the date of issue of the Letter of Acceptance, as indicated in the Appendix.
4. If our Tender is accepted, we will furnish a Bank Guarantee for Performance as security for the due performance of the Contract. The amount and form of such guarantee or bond will be in accordance with **Clause 4.2** of the General Conditions of the Contract and as indicated in the Appendix.
5. We have independently considered the amount shown in **Clause 9.7** of the General Conditions of Contract as liquidated damages and Penalty in **Clause 25.0** of Special Conditions of Contract and agree that they represent a fair estimate of the damages likely to be suffered by you in the event of the work not being completed in time.

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**FORM A**

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6. We agree to abide by this Tender for a minimum period of 90 days from the last date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiry of that period or any extended period mutually agreed to.
7. We declare that the submission of this Tender confirms that no agent, middleman or any intermediary has been, or will be engaged to provide any services, or any other item of work related to the award and performance of this Contract. We further confirm and declare that no agency commission or any payment, which may be construed as an agency, commission has been, or will be, paid and that the tender price does not include any such amount. We acknowledge the right of JIPMER, if it finds to the contrary, to declare our Tender to be non-compliant and if the Contract has been awarded to declare the Contract null and void.
8. We understand that you are not bound to accept the lowest or any tender you may receive.
9. If our Tender is accepted we understand that we are to be held solely responsible for the due performance of the Contract.

Dated this.....day of.....**2014**

Signature .....

Name..... in the capacity of .....

duly authorized to sign Tenders for and on behalf of.....

Address .....

Witness – Signature .....

Name .....

Address .....

Occupation .....

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**APPENDIX TO THE FORM OF TENDER**

	<b>Condition of Contract Clause No.</b>		
i.	Amount of Bank Guarantee as Performance Security	<b>4.2</b> of General Conditions	10 percent of the <b>Total Contract Price.</b>
iii	Period for commencement of work from the date of signing of Contract Agreement		<b>One Week</b>
iv	Time for completion from the date of issue of the Letter of Acceptance	<b>24.0</b> of Special Conditions	<b>12 months</b>
v.	Amount of liquidated damages in case of extension of completion date due to delays by the Contractor	<b>9.7</b> of General Conditions	0.25% of Contract value of works for each week or part thereof where the Contractor is in default, subject to maximum of 10% of Contract value
vi.	Defects Liability Period from the date of issue of "Taking-over certificate"	<b>12.0</b> of General Conditions	12 months
vii.	Period of warranty for equipment against faulty design and defective manufacture from the date of completion of period of maintenance.	<b>6.4</b> of General conditions	
	Signature of authorized signatory on behalf of Tenderer		

Date .....

Name .....

Place .....

Address .....



**FORM OF BANK GUARANTEE FOR TENDER SECURITY**

(Ref: Clause 4.8 of “Instructions to Tenderers”)

1. KNOW ALL MEN by these presents that we ..... (Name of Bank) having our registered office at ..... (Name of country) (hereinafter called “the Bank”) are bound unto HLL Lifecare Limited, Thiruvananthapuram (hereinafter called “HLL”) in the sum of **Rs. \_\_\_\_** for which payment will and truly to be made to the said HLL, the Bank binds itself, its successors and assigns by these presents.
2. WHEREAS.....(Name of Tenderer) (hereinafter called “the Tenderer”) has submitted its tender dated\_\_\_\_\_for (Name of the work as mentioned under Clause 1.1.1 of NIT) hereinafter called the tender.  
  
AND WHEREAS the Tenderer is required to furnish a Bank Guarantee for the sum of **Rs \_\_\_\_**(\_\_\_\_) as Tender Security against the Tenderer’s offer as aforesaid.  
  
AND WHEREAS\_\_\_\_\_(Name of Bank) have, at the request of the Tenderer, agreed to give this guarantee as hereinafter contained.
3. We further agree as follows:
  - a. That HLL may without affecting this guarantee grant time or other indulgence to or negotiate further with the Tenderer in regard to the conditions contained in the said tender and thereby modify these conditions or add thereto any further conditions as may be mutually agreed upon between HLL and the Tenderer.
  - b. That the guarantee hereinbefore contained shall not be affected by any change in the constitution of our Bank or in the constitution of the Tenderer.
  - c. That any account settled between HLL and the Tenderer shall be conclusive evidence against us of the amount due hereunder and shall not be questioned by us.
  - d. That this Guarantee commences from the date hereof and shall remain in force till \_\_\_\_\_(date to be filled up) (up to 150 days from the last date of submission of tender).
  - e. That the expression ‘the Tenderer’ and ‘the Bank’ herein used shall, unless such an interpretation is repugnant to the subject or context, include their respective successors and assigns.
4. THE CONDITIONS OF THIS OBLIGATION ARE:
  - a. if the Tenderer withdraws his Tender during the period of Tender validity specified in the Form of Tender, or

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**FORM B**  
PAGE 2 OF 2

- b. if the Tenderer does not accept the correction of his tender price in terms of Clause 6.6 of the “Instructions to Tenderers”.
- c. if the Tenderer having been notified of the acceptance of his tender by HLL during the period of tender validity :
  - i. fails or refuses to furnish the Performance Security in accordance with Clause 8.0 of the “Instructions to Tenderers” and/or
  - ii. fails or refuses to enter into a Contract within the time limit specified in Clause 7.5 of the “Instructions to Tenderers”.

We undertake to pay to HLL upto the above amount upon receipt of his first written demand, without HLL having to substantiate his demand provided that in his demand HLL will note that the amount claimed by him is due to him owing to the occurrence of any one or more of the conditions (a), (b), (c) mentioned above, specifying the occurred condition or conditions.

Signature of .....  
Authorized Official of the Bank

Signature of the witness  
.....

Name of Official .....  
Designation .....

Name of the Witness  
.....

Stamp/Seal  
of the Bank .....

Address of the Witness  
.....

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**FORM-C**

Page 1 OF 2

**FORMAT FOR FINANCIAL BID  
(on the letter head of the Company)**

**Date:**

**To:**

The Deputy Vice President (T)  
HLL Lifecare Limited,  
Infrastructure Development Division,  
“Adarsh”, T.C 6/1718(1), Vettamukku,  
Thirumala PO, Thiruvananthapuram- 695 006.

Sub.: Selection of an Agency for *DESIGN, SUPPLY, INSTALLATION, COMMISSIONING AND O & M OF PNEUMATIC TUBE CONVEYOR SYSTEM at JIPMER*

**Dear Sir / Madam:**

- (i) Being duly authorized to represent and act on behalf of ....., and having reviewed and fully understood all the requirements of bid submission provided vide the RFP document dated ..... pertaining to design, supply, installation, commissioning, and O & M of a pneumatic tube conveyor system at JIPMER, Puducherry, we hereby provide our Financial Proposal for undertaking this Project.

Total cost for undertaking the entire project detailed in Scope of work (clause 2.1 to 2.4 of NIT) and Employer's Requirements (Section IV) of RFP Document. (as per detailed breakup given in Page 2 of 2 Form C)	_____ Indian Rupees (in figures) _____ (in words)
---	--

- (ii) We understand that the Total Bid Value will be considered for determining the lowest Bid and the contract will be based on the Total Cost of Installation.  
(iii) We will be signing the Annual O&M Contract with JIPMER separately as quoted in this financial Bid.  
(iv) We agree to be bound by this offer if our offer for this project is accepted.

For and on behalf of :  
Signature :  
Name of the Person :  
Designation :

**Instructions:**

1. No conditions should be attached.
2. In case of difference between the words and figures, words would prevail.

(Should be given in a sealed envelope).

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**FORM C**

**Page 2 of 2**

**Break up of Cost of Design and Build proposal as per RFP document**

<b>SL No</b>	<b>Project Component</b>	<b>Cost</b>
1.	Total Cost of Imported Components (Foreign Currency)	
2	Cost of all other components (INR)	
3.	Cost of installation, commissioning and training of personnel (INR)	
4.	Annual O&M (24x7) cost for 10 years to be quoted year wise	
	a) I Year (Defect Liability Period)	
	b) II year	
	c) III year	
	d) IV year	
	e) V year	
	f) VI year	
	g) VII year	
	h) VIII year	
	i) IX year	
	j) X year	
	<b>TOTAL BID VALUE</b>	
	<b>a) Foreign Currency</b>	
	<b>b) INR</b>	

**FORM OF PERFORMANCE SECURITY (GUARANTEE) BY BANK**

(Refer Clause 8.0 of “Instructions to Tenderers”)

1. This deed of Guarantee made this day of \_\_\_\_\_ between Bank of \_\_\_\_\_ (hereinafter called the “Bank”) of the one part, and HLL Lifecare Limited (HLL), a company incorporated under the Companies Act 1956 with Registered office at HLL Bhavan, Poojappura, Thiruvananthapuram - 695012) of the other part.
2. Whereas HLL Lifecare Limited (HLL), a company incorporated under the Companies Act 1956 with Registered office at HLL Bhavan, Poojappura, Thiruvananthapuram - 695012 has awarded the contract for ----- (Name of work as mentioned under Clause 1.1.1 of NIT) (hereinafter called the contract) to \_\_\_\_\_ (hereinafter called the Contractor).  
(Name of the Contractor)
3. AND WHEREAS the Contractor is bound by the said Contract to submit to HLL Lifecare Limited a Performance Security for a total amount of Rs. \_\_\_\_\_ (Amount in figures and words).
4. Now we the Undersigned \_\_\_\_\_ (Name of the Bank) being fully authorized to sign and to incur obligations for and on behalf of and in the name of \_\_\_\_\_ (Full name of Bank), hereby declare that the said Bank will guarantee HLL Lifecare Limited the full amount of Rs. \_\_\_\_\_ (Amount in figures and Words) as stated above.
5. After the Contractor has signed the aforementioned Contract with HLL Lifecare Limited, the Bank is engaged to pay HLL Lifecare Limited, any amount up to and inclusive of the aforementioned full amount upon written order from HLL Lifecare Limited to indemnify HLL Lifecare Limited for any liability of damage resulting from any defects or shortcomings of the Contractor or the debts he may have incurred to any parties involved in the Works under the Contract mentioned above, whether these defects or shortcomings or debts are actual or estimated or expected. The Bank will deliver the money required by HLL Lifecare Limited immediately on demand without delay without reference to the Contractor and without the necessity of a previous notice or of judicial or administrative procedures and without it being necessary to prove to the Bank the liability or damages resulting from any defects or shortcomings or debts of the Contractor. The Bank shall pay to HLL Lifecare Limited any money so demanded notwithstanding any dispute/disputes raised by the Contractor in any suit or proceedings pending before any Court, Tribunal or Arbitrator/s relating thereto and the liability under this guarantee shall be absolute and unequivocal.
6. This Guarantee is valid till ..... (The initial period for which this Guarantee will be valid must be for at least 6-months (six months) longer than the anticipated expiry date of Defects Liability Period as stated in **Clause 11.0** of the “General Conditions of Contract”)
7. At any time during the period in which this Guarantee is still valid, if HLL Lifecare Limited agrees to grant a time extension to the Contractor or if the Contractor fails to complete the Works within the time of

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completion as stated in the Contract, or fails to discharge himself of the liability or damages or debts as stated under Para 5, above, it is understood that the Bank will extend this Guarantee under the same conditions for the required time on demand by HLL Lifecare Limited and at the cost of the Contractor.

8. The Guarantee hereinbefore contained shall not be affected by any change in the Constitution of the Bank or of the Contractor.
9. The neglect or forbearance of HLL Lifecare Limited in enforcement of payment of any moneys, the payment whereof is intended to be hereby secured or the giving of time by HLL Lifecare Limited for the payment hereof shall in no way relieve the bank of their liability under this deed.
10. The expressions “HLL Lifecare Limited”, “the Bank” and “the Contractor” hereinbefore used shall include their respective successors and assigns.

In witness whereof I/We of the bank have signed and sealed this guarantee on the ----- day of -----  
---- (Month) **2014** being herewith duly authorized.

For and on behalf of

The.....Bank.

Signature of Authorized Bank official

Name : .....

Designation : .....

Stamp/Seal of the Bank : .....

Signed, sealed and delivered

for and on behalf of the

Bank by the above

named\_\_\_\_\_in

the presence of :

Witness 1.

Signature .....

Name .....

Address .....

Witness 2.

Signature .....

Name .....

Address .....

.....

**FORM OF CONTRACT AGREEMENT**  
(Refer Clause 7.0 of “Instructions to Tenderers”)

This Agreement is made at Puducherry on the \_\_\_\_\_ day of \_\_\_\_\_ **2013** Between HLL Lifecare Limited (HLL), a company incorporated under the Companies Act 1956 with Registered office at HLL Bhavan, Poojappura, Thiruvananthapuram - 695012 hereinafter called “Client” of the one part and \_\_\_\_\_ (Name of Contractor) (Address of Contractor) \_\_\_\_\_ of \_\_\_\_\_ hereinafter called “the Contractor” of the other part.

Whereas HLL for and on behalf of JIPMER (Jawaharlal Institute of Post Graduate Medical Education and Research, Puducherry) is desirous that certain Works should be executed, viz. **design, supply, installation, commissioning, and O & M of a pneumatic tube conveyor system at JIPMER**, hereinafter called “the Works” and has accepted a Tender by the Contractor for the execution and completion of such works (\*\* as well as guarantee of such works) and the remedying of defects therein. NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement words and expression shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
  - (a) Notice Inviting Tender (NIT)
  - (b) Instructions to Tenderers (ITT)(Including Annexures)
  - (c) Special Conditions of Contract (SCC)
  - (d) General Conditions of Contract (GCC)
  - (e) Employer’s requirements
  - (f) Tender submitted by the Contractor.
  - (i) Programme Implementation Schedule
  - (j) Form of Tender with Appendix
  - (k) Letter of acceptance (LOA)
  - (l) Addendums issued, if any including Minutes of Pre Bid meeting
3. In consideration of the payments to be made by Client to the Contractor as hereinafter mentioned, the Contractor hereby covenants with Client to execute and complete the works by \*\* \_\_\_\_\_ and remedy any defects therein in conformity in all respects with the provisions of the Contract.
4. Client hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying of defects therein, the Total Contract Price of \*\*Rs \_\_\_\_\_ being the sum stated in the letter of acceptance subject to such additions thereto or deductions there from as may be made under the provisions of the Contract at the times and in the manner prescribed by the Contract.

**5. OBLIGATION OF THE CONTRACTOR**

The contractor shall ensure full compliance with tax laws of India with regard to this contract and shall be solely responsible for the same. The contractor shall submit copies of acknowledgements evidencing filing of returns every year and shall keep JIPMER/HLL fully indemnified against liability of tax, interest, penalty etc. of the contractor in respect thereof, which may arise.

IN WITNESS WHEREOF the parties hereto have caused their respective Common Seals to be hereunto affixed / (or have hereunto set their respective hands and seals) the day and year first above written.

For and on behalf of the Contractor

For and on behalf of HLL Lifecare Limited

Signature of the authorized official

Signature of the authorized official

Name of the official

Name of the official

Stamp/Seal of the Contractor

Stamp/Seal

**SIGNED, SEALED AND DELIVERED**

By the said

By the said

\_\_\_\_\_ Name

\_\_\_\_\_ Name

on behalf of the Contractor in the presence of:

on behalf of HLL Lifecare Limited in the presence of:

Witness \_\_\_\_\_

Witness \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

**Note :**

- \* To be made out by JIPMER/HLL at the time of finalisation of the Form of Agreement.
- \*\* Blanks to be filled by JIPMER/HLL at the time of finalisation of the Form of Agreement.
- \*\*\* to be deleted if not applicable



**GENERAL INFORMATION**

Notes :

- (i) Attach an attested photocopy of Certificate of Registration.
1. Names of the firm: .....
  2. Legal Status of the Firm: Individual/Association/Joint Venture/Consortium
  3. Registered Address, telephone, Tele-fax.  
.....  
.....  
.....
  4. Contact Person and His Designation and address, email address  
.....  
.....  
.....
  5. Number of years of experience as EPC Developers
  6. Number of PTS systems commissioned on turnkey basis during the last seven years with details
  7. Names and Addresses of Associated Companies to be involved in the Project and whether Parent / subsidiary/ others.
  8. If the company is subsidiary, what involvement, if any, will the Parent Company have in the Project?
  9. State the Quality System followed in the Company. Does the company have an ISO 9001 certificate or it follows an internal quality system.



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**FORM T-II**

**NUMBER OF SYSTEMS INSTALLED IN HOSPITALS OR DIAGNOSTIC CENTRES IN LAST FIVE YEARS**

**Applicant's Name:** .....

**Number of PTS systems commissioned in last five years**

Sl. No.	Location of the PTS system	Name and address of the Client	System details			Year of installation	Whether HOSPITAL OR DIAGNOSTIC CENTRE	Alone/Join t Venture/ Consortiu m if in a joint venture or consortiu m state the percentag e participati on	Details and documentary evidence on page number
			Stations	cost	Name of Foreign vendor				
1									
2									
3									
4									
5									
6									

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**FORM T-III**  
**PAGE 1 OF 2**

**KEY PERSONNEL PROPOSED FOR THE PROJECT**

(Refer Clause 4.2)

Sl. No.	Sector	Minimum number required	Number of proposed personnel	Education	Proposed Designation	Total Years of Experience	Relevant Experience in years	Details in Annexure on page no.
1.	Project Manager	1						
2.	Site Supervisor-Civil	1						
3.	Site Supervisor- E&M	1						
4.	Technician (Civil)	2						
5.	Electrician	2						

Note :

- 1) A summary of the qualification and work experience of each key staff, to be attached.
- 2) The minimum level of supervision and qualification/experience of site-staff is given under **Annexure – A.**
- 3) **CVs** to be submitted for all the proposed personnel in the format provided

**CVS OF KEY STAFF**

<b>Name of the Staff</b>		
<b>Designation</b>		
<b>Name of the firm presently employed</b>		
<b>Years with the firm</b>		
<b>Proposed position</b>		
<b>Details of task assigned</b>		
<b>Man- Months budgeted for the task assigned</b>		
<b>Key Qualifications</b>		
<b>Education</b>		
<b>Employment Record</b>		
<b>Name of the Firm</b>	<b>Position Held</b>	<b>Years of Employment</b>

FORM T-IV  
PAGE 1 OF 2

**FINANCIAL DATA – PTS SYSTEMS INSTALLED**

(Refer Clause 4.2)

**Total value of PTS installed on Turnkey basis during the last five financial years (For each member in case of Group):**

S.No.	Description	2012-13	2011-12	2010-11	2009-10	2013-14
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Total value of Projects					

- 
- Attach attested copies of the Audited Financial Statements of the last five financial years as Annexures. **Financial Values to be given in Crores of Rupees.**
-

**FINANCIAL DATA  
(Refer Clause 4.2)**

**List of all Ongoing Contracts**

Name of the applicant (constituent member in case of Group)	Total number of works in hand	Number of contracts of each type			Number for which applicant went in for		Number of contracts in which date of completion given in the original has already burst	**Total value of balance works yet to be done in 2014-15 Rupee equivalent in Crores
		A. PTS in Hospitals	B. PTS in Diagnostic Centres	C. Others	Arbitration	Litigation		

Applicant (each member of the group) should provide information on their current commitments or all contracts that have been awarded or for which a letter of intent or acceptance has been received or for contracts approaching completion but for which a completion certificate is yet to be issued.

\*\* This figure should also include the year-wise break-up of part value of works to be executed in the year even if completion of such works spills over beyond the year.

**FINANCIAL DATA FOR ASSESSMENT OF NET WORTH ETC.**

<b>YEAR</b>	<b>2013-14</b>	<b>2012-13</b>	<b>2011-12</b>	<b>2010-11</b>	<b>2009-10</b>
<b>Net Working Capital</b>					
<b>Net Cash Flow</b>					
<b>Annual Turnover</b>					
<b>Profit /Loss</b>					

**Attach documentary evidence in support of the data clearly marking the relevant portion.**



**PERFORMANCE REPORT OF WORKS (On Clients' Letter Head)**

- 1. Name of work/ Project and location**
- 2. Agreement No.**
- 3. Contract Value**
- 4. PTS System details**
  - a. No of loading stations**
  - b. No of Blowers with accessories**
  - c. Details of Tubes used**
- 5. Date of Start**
- 6. Date of Completion**
  - a. Stipulated Date of Completion**
  - b. Actual Date of Completion**
- 7. Amount of Compensation levied for delayed completion if any**
- 8. Performance report**
  - a. Quality of work** **Very Good/ Good/ Fair/ Poor**
  - b. Financial soundness** **Very Good/ Good/ Fair/ Poor**
  - c. Technical Proficiency** **Very Good/ Good/ Fair/ Poor**
  - d. Resourcefulness** **Very Good/ Good/ Fair/ Poor**
  - e. General behaviour** **Very Good/ Good/ Fair/ Poor**

**Date:**

**Authorised Signatory (with stamp)**

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**Annexure –A**

**DESIRED SITE ORGANISATION STRUCTURE**

MINIMUM LEVEL OF SUPERVISION AND QUALIFICATION/EXPERIENCE OF KEY STAFF IS  
AS FOLLOWS:

S.No.	DESIGNATION	QUALIFICATION	EXPERIENCE LEVEL
1.	Project Manager (Team Leader)	Engineering/Management Graduate with knowledge of MS Project/ Primavera	Minimum 5 years as Project Manager of similar works with a Minimum total experience of 15 yrs.
2.	Site supervisor a. Civil engineer b. Electrical & Mechanical Engineer	Graduation/Diploma in concerned Disciplines	Minimum site supervision experience Graduate – 2 years, Diploma Holders – 5 years

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**SECTION III**

**SPECIAL CONDITIONS OF CONTRACT**

<b>Sl. No.</b>	<b>Reference to GCC Clause No.</b>	<b><u>Modified Clause</u></b>
1.	Name of the Work	Name of the Work shall be as per Clause 1.1.1 of NIT
2.	1.4 Law and Language	<p>The Contractor shall keep a suitably qualified person at the Site who is fluent in local language and is able to interact with local people.</p> <p>In addition to this, any document, which is in any language other than English, shall be translated to English and certified.</p> <p>The Contractor shall familiarize himself with the local laws and administration of Puducherry and comply by them.</p>
3.	2.1 Right of Access to Site	The Employer shall give right of access of Site to the Contractor within 15 days of the signing of the Contract Agreement.
		<p>The Contractor, after obtaining any necessary consent from any relevant authority, shall submit to the Engineer, proposals showing the layout of pedestrian routes, lighting, signs, and guarding any road opening or traffic diversion which may be required in connection with the execution of the Works and which the Contractor intends to construct. Any consent given by the Engineer to such proposals shall not relieve the Contractor of any obligation under the Contract or absolve the Contractor from any liability for or arising from such proposals or the implementation thereof.</p>
4.	4.1 Contractor's General Obligations	<p>The Contractor's proposals for erection of all ancillary and temporary works shall be in conformity with the proposals submitted along with the tender and modifications thereto as approved by the Engineer.</p> <p>The Contractor shall submit drawings, supporting design calculations where called for by the Engineer and other relevant details of all such works to the Engineer for approval at least one month before he desires to commence such works. Approval by the Engineer of any such proposal shall not relieve the Contractor of his responsibility for the adequacy of such works.</p> <p>No extra payment will be made for complying with the provisions of this clause and the cost of such works shall be deemed to be included in the contract price.</p>

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		This submittal shall be made minimum one month before the Works are to be carried out to give the Engineer and the Employer reasonable time to examine the drawings or other documents, to prepare comments and for any changes to be accommodated by the Contractor.
		The installation shall be in conformity with the Bye-laws, Regulations and Standards of the local authorities concerned in so far as these become applicable to the installation. But if these Specifications and Drawings call for a highest standard of materials and / or workmanship than those required by any of the above Regulations and Standards then these Specifications and Drawings shall take precedence over the said Regulations and Standards. However, if the Drawings or Specifications violate any Bye-Laws and Regulations, then the Bye-Laws and Regulations shall govern the requirement of this installation.
5.	4.2 Performance Security	The Contractor shall submit a performance security equal to 10% of Contract value within 30 days of issue of letter of acceptance  The Performance Security should be submitted in the form of a Bank Guarantee from a scheduled commercial bank in India in the format supplied for bank guarantees in the Contract.
6.	4.6 Setting out	The contractor shall survey and fix the alignment, set out the PTS Lines maintaining vertical & horizontal clearances and keeping in view important site references and obligatory locations in consultation with Engineer.  The Contractor shall establish at his cost, at suitable points, additional reference lines and bench marks as may be necessary. The Contractor shall remain responsible for the sufficiency and accuracy of all his benchmarks and reference lines. He shall take precautions to see that lines, points and bench marks fixed by the Engineer are not disturbed by his work and shall make good any damage thereto.
7.	4.7 Safety Procedures	The Contractor shall not disturb the ongoing activities of the Institute. He shall take care that his activities do not result in any kind of accidents, spread of any infection etc in the campus. At the same time he shall as well ensure that his personnel are safe and do not get any infection from the hospital activities.
		The obligations and requirements for safety and industrial health under this Contract are entirely without prejudice to, and do not derogate from, the Contractor's statutory obligations, with respect to safety and industrial health.

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8.	4.10 Sufficiency of the Contract Price	The responsibility of Contractor under sub-clause 4.10 of General Conditions of Contract is full and final and no claim by the Contractor for additional payment or extension of time shall be allowed on the ground of any misunderstanding or misapprehension by the contractor or that incorrect or insufficient information was given to the Contractor or that he failed to obtain correct and sufficient information.
9.	4.12 Right of Way and facilities	The Employer shall provide right of way to the Contractor within its land for the purpose of executing the Contract.
10.	4.13 Avoidance of Interference	<p>The Contractor shall maintain a safe environment for patients, personnel and public.</p> <p>The Contractor shall ensure that his employees do not leave the Site at any time without the permission of the Engineer.</p> <p>The Contractor shall ensure that the vehicles, machines and equipment, which he uses, are safe and do not cause any harm to patients, students or personnel.</p>
11.	4.13 Avoidance of Interference of Quiet Operation and vibration isolation	All equipment shall operate under all conditions of load without any sound or Vibration, which is objectionable and beyond the limits specified by the relevant laws. In case of rotating machinery sound or vibration noticeable outside the room in which it is installed or annoyingly noticeable inside its own room shall be considered objectionable. The Contractor at his own expense shall correct such conditions.
		<p>Existing roads and other public roads may be used by the Contractor at his risk and cost to carry out construction activities, with prior approval of the competent authority.</p> <p>The Contractor shall repair any damage to the road or bear the cost thereof due to movement of contractor's plants and equipment, vehicles etc. to the specifications and satisfaction of road authorities as well as of Engineer.</p> <p>The Contractor shall plan transportation of construction materials to work site in accordance with traffic regulations enforced by local traffic authorities from time to time and in such a way that road accidents are avoided and minimum inconvenience is caused.</p> <p>No claim whatsoever shall be entertained on this account. The transportation of certain equipment and materials and launching may not be possible during day and may have to be carried out within time schedule specified by traffic police.</p>

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		<p>The Contractor must note that the installation is to be done in a working hospital and ensure that no part of his works interfere or damage or cause harm to the existing activities of the institute.</p> <p>The Contractor shall ensure that the noise levels are not high and do not disturb the patients inside the hospital and academic activities.</p> <p>Proper barricading shall be provided to ensure the safety of works and public.</p>
12.	4.16 Contractor's Equipment	For any imported equipment or part thereof offered by the Contractor, he will have to make his own arrangements for import formalities and procurement of equipment without involving the Employer in any way for any clearance certificates/licenses/assurances.
		The Employer may assist (but is not obligated to) the Contractor, where required, in obtaining clearance through the Customs for Constructional Plant, Materials and other things required for the Works.
		The contractor shall obtain all permits / licenses and pay for any and all fees required for the inspection, approval and commissioning of their installation.
13.	4.17 Protection of Environment	The Contractor shall not cut or destroy any tree in the campus to the maximum extent possible. In case any tree is to be cut he shall obtain prior permission from the engineer and shall plant equal number of saplings or adhere to the requirements of the prevailing Environmental laws which ever is more stringent. The Contractor shall use all means to minimize the effluents from his construction work and transportation activity or any other activity in the course of the Project.
14.	4.19 Employer's Equipment	The Employer shall supply no material, tools, plant and equipment. The Contractor shall arrange all tools, plant, equipment as well as the required construction materials.
15.	4.22 Contractor's Operations on Site	All construction debris shall be removed from site daily or as they accumulate. All surface and sub-soil drains at the site shall be maintained in a clean, sound and satisfactory state of performance.
16.	4.23 Fossils, Discoveries and Items of Value	The Contractor must note that the project may involve some items of demolition. If during such works, the Contractor finds any items of Salvage Value, which can be sold, he shall indicate the same in the monthly progress report submitted to the Employer and sell it off only after the approval from the Employer. The payments shall be adjusted accordingly as per

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		the decision of the Engineer.
17.	5.1 General Design Obligations	<p>The contractor shall submit his preliminary design and make a 3D presentation to the Employer within 21 days from the date of issue of letter of acceptance as mentioned in Clause 1.3 of Instructions to Tenderers.</p> <p>If the Engineer has reasonable cause for being dissatisfied with the Contractor's drawings or documents the Engineer shall, within a period of 21 days from the date of submittal, require the Contractor in writing to make such amendments thereto as the Engineer may consider necessary. The Contractor shall make and be bound by such amendments at no additional expense to the Employer and shall resubmit the amended drawings or documents for the Engineer's approval for the execution of Works within next 21 days.</p> <p>No extension of time or extra payment shall be given to the Contractor to comply with the above.</p>
		<p>Should it be found at any time after notification of consent that the relevant drawings or documents do not comply with the Contract or do not agree with drawings or documents in relation to which the Engineer has previously notified his consent, the Contractor shall, at his own expense, make such alterations or additions as, in the opinion of the Engineer, are necessary to remedy such non-compliance or non-agreement and shall submit all such varied or amended drawings or documents for the consent of the Engineer.</p>
18.	5.2 Contractor's Documents	<p>The Contractor shall submit the following in addition to the documents stated in the contract, with his design:</p> <ul style="list-style-type: none"> <li>i. Detailed drawings including the structural drawings (where necessary), component drawing etc.</li> <li>ii. Consolidated statement in a tabular form for the Standards and Specifications being followed in the design and for materials to be used</li> <li>iii. List of vendors from whom the materials are proposed to be procured</li> <li>iv. Tests required to be carried out in the contract</li> <li>v. Outline safety plan for the site and an outline quality plan</li> </ul>
		<p>The Contractor shall include in his design, in addition to operational needs, considerations of provisions for infection control, life safety, and the progress of the Project as detailed out in Employer's Requirements.</p>

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		<p>The Contractor shall satisfy himself that the Design Data, in the case of submissions up to and including the proposed Design, comply with the Employer's Requirements and is in accordance with, and incorporates the Contractor's Technical Proposals.</p> <p>In the case of submissions subsequent to the proposed Design, the Design Data shall be in accordance with Employer's Requirements and the accepted Design.</p>
19.	5.5 Training	<p>The Contractor shall arrange training sessions for the Employer's Personnel for using the machinery and equipment especially the operation of the system and its components.</p>
		<p>The Contractor shall submit to the Engineer-in-charge a draft copy of comprehensive operating instructions maintenance schedule and log sheets for all systems and equipment included in this contract. This shall be supplementary to manufacturer's operating and maintenance manuals. Upon approval of the draft, the contractor shall submit four (4) complete bound sets of printed operating instructions and maintenance manuals.</p> <p>The contractor shall also train the institute personnel, to operate the plant and carry out routine checks, during the period of installation and testing.</p>
20.	6.0 Equipment	<p>The Contractor shall bear all charges for the order, purchase, transport, supply erection and commissioning of the equipment including taxes, duties etc wherever applicable and the same shall be deemed to have been included in his Contract price.</p> <p>The Employer, wherever feasible, may at his discretion, assist the Contractor in getting the approvals for import</p>
21.	7.2 Rates of wages for labour	<p>The Contractor must familiarize himself and comply with relevant labour laws like Minimum Wages Act, 1948 and Contract Labour (Regulation and Abolition) Act, 1970 etc. No extra payment whatsoever shall be made to the Contractor to comply with the rules and laws.</p>
22.	7.5 Working Hours	<p>No works shall be carried out in the nights except as permitted by the Engineer under exceptional circumstances.</p> <p>Lighting and Fire Protection: Where night working is permitted by the Engineer to facilitate the Contractor's Work operations, temporary lighting equipment as per approved layout shall be provided, installed, maintained for the duration of the contract and removed after completion of work by and at the expense of the Contractor.</p> <p>No extra payment will be made to the Contractor for the provision of temporary lighting and fire prevention measures.</p>



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23.	7.6 Facilities for staff and labour	The Contractor shall provide at his own expense, all necessary accommodation and the welfare facilities for his staff and labour. This includes good practices like provision of temporary crèche (Bal Mandir) where 50 or more women are employed at a time. The Contractor at his cost shall maintain all accommodation in a clean and sanitary condition.
		The Contractor shall prepare and submit compliance reports of adherence to labour laws as and when desired by the Engineer.
24.	9.2 Time for Completion	Time for Completion of the entire project is 12 months from the date of issue of Letter of Acceptance.
25.	9.3 Program	<p>Activities in the initial works programme would be arranged as per the Works Break Down Structure (WBS) of the work developed by the contractor in consultation with and approved by the Engineer.</p> <p>The Contractor will prepare Programme based on Computerized CPM network using the Precedence Diagramming Method within 30 days of award for approval as 'Baseline Programme' The base line program shall clearly reflect interface and access dates for other civil/ system-wide contracts.</p> <p>After the work has started, the Contractor shall deliver in the first week of every month to the Engineer an update of the Programme showing changes, if any, in planning or progress scheduling and reflecting the progress of all the activities of the network and the project status as at the end of previous month.</p> <p><b>Detailed Network Plan (Works Programme)</b></p> <p>Detailed Network Plan shall be prepared by the Contractor for each and every activity within the same time frame and in the same sequence as indicated in the Baseline Programme. Activity at this level shall not be more than 15 days duration, except for summary items like procurement/ mobilization etc.</p> <p>The Engineer's monitoring team will have access to all the data/information of the Contractor, required for the assessment of the progress and monitoring. If necessary, the monitoring team will visit the Vendor/Contractor's works in order to assess the status of critical activities.</p> <p>The Employer or the Engineer will hold periodic Project Status Review Meetings. The Contractor shall depute his Engineers/Managers at appropriate level as decided by the Engineer to attend the Review Meetings.</p> <p>The Contractor shall provide additional inputs whenever the PERT-CPM diagram indicates a possible slippage in the completion schedule. Such additional inputs may require supplementing of equipment, personnel, work in excess of the normal work per day, and work in excess of the normal work per week or other resources. Provisions under Sub-Clause 8.7 of</p>

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		General Conditions of Contract will be applicable in cases of delays due to Contractor.
	<b>Penalty</b>	<p>Should there be any delay in the achieving any milestone as per the 'Baseline Programme' referred to in the previous clause, the Contractor shall be liable to pay penalty for the delay to an extent of Rs. 1,000 per day to the Employer.</p> <p>This penalty shall be in addition to liquidated damages if any, which shall be incurred if the performance of the Contract is delayed.</p> <p>This penalty shall not relieve the contractor from his obligation to complete the Works or from any other of his obligations and liabilities under the Contract.</p>
26.	10.0 Tests on Completion	The Contractor shall in addition to the tests instructed by the Engineer, carry out the tests on Completion for the equipment installed in the different departments of the Facilities after Substantial Completion of the Project as per the Manuals.
27.	12.0 Defects Liability Period	Defects Liability Period for the purpose of the Contract shall be in accordance with Clause 1.3 of Instruction to Tenders.
28.	15 Contract Price and Payments	<p>The Contract price shall be a lump sum price mentioned in the Letter of Acceptance.</p> <p>The Contractor shall not be paid any charges towards any taxes or duties etc. Sales Tax/VAT (except Service Tax), Building and other Construction Workers' Welfare Cess or any other tax or cess in respect of this contract shall be deemed to have been included in the Contract price.</p> <p>The Employer reserves the right to conduct any post payment audit, which he considers appropriate.</p>
	<b>Post Payment Audit</b>	<p>The Employer reserves to himself the right to carry out a post payment audit and/or technical examination of the Works and the Final payment including all supporting vouchers, etc., and to make a claim on the Contractor for the refund of any excess amount paid to him, if as a result of such examination, any overpayment to him is discovered to have been made in respect of any work done or alleged to have been done by the Contractor, under the Contract.</p> <p>If any under payment is discovered, the Employer shall pay the same to the Contractor. Such payments or recoveries shall not carry any interest.</p>
		The Contractor is required to pay all taxes, levies etc for the Works and shall be deemed to have included the same in his Contract Price.

## **SECTION IV**

### **EMPLOYER'S REQUIREMENTS**

#### **1. Introduction to the project**

Jawaharlal Institute of Post Graduate Medical Education and Research, Puducherry, intends to install a **pneumatic tube conveyor system** to cover the healthcare services spread over several buildings in its campus.

The project shall be carried out on Turnkey basis, where the selected agency shall be responsible for the all aspects of the implementation of the project including the planning, design and construction of ancillary structures, as well as procurement, installation and commissioning of the system in accordance with the Employer's Requirements.

The Project is estimated to cost around Rs. **9 crores** and is scheduled to be completed within a period of 12 months from the date of award.

#### **2. Scope of Work**

**Scope of the work shall include the following activities.**

- i. Planning the system including detailed design and engineering.
- ii. Planning the routing of the tube network taking into account immediate future needs (buildings under construction).
- iii. System automation including necessary software.
- iv. Laying of communication & control network cables
- v. Any additions and alterations to the existing buildings for the installation of central controller, blowers and any other associated plant.
- vi. The system connecting the buildings shall use connecting corridors wherever possible. Otherwise the work shall include
  - a. Any supporting structures / core cutting in walls, RCC etc for pipes
  - b. Design & installation of supporting structure for the system if above ground.
  - c. Excavation, refilling and Re-instatement of the hard-scape areas in case of underground installation

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- vii. Getting approvals, permissions, NOC from the statutory / government agencies if required.
- viii. All aspects of quality assurance, including testing of equipment and other components of the work
- ix. Project Management to ensure completion of Project as per timelines
- x. Submission of the completion ('as-built') drawings and other related documents along with a soft copy any related software.
- xi. Making good any defect during the Defects Liability Period

2.2 The PTS system shall cover the following buildings. A Master plan of the campus indicating the lines interconnecting the buildings is attached as **Annexure**.

- a. Old Hospital buildings including OPD & ID ward & Institute Buildings where some labs are situated.
- b. Super Specialty Hospital
- c. Trauma Care Centre (EMSD)
- d. Women and Children Hospital
- e. Pharmacy Block

**2.3 The PTS system design should take into account the buildings under construction namely the Expansion to SS Block and the Screening OPD. The installation however, will be limited to the buildings mentioned under 2.2.**

## **2.4 TECHNICAL REQUIREMENTS**

### **2.4.1 Main Controller:**

The entire system has to be electronically controlled by microprocessors. The main control unit, which controls the sending process and the compressor unit, supervises all system components.

The Main Controller must not be controlled by the PC – the System must remain fully available without any restrictions even if PC-monitoring is not available.

The sending process has to be indicated on display devices. The device also has to provide information to find the cause of a system malfunction. Customer-specific data such as the system's layout, target numbers, target names, arrival signals, priority and special functions

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must be selectable on site without change or external reprogramming of memory devices. A integrated uninterrupted power supply must provide the requested system back up time to paste all date before shutting down the system, so after power source is providing energy again a automatic system start will occur and the system status will get back in the operation mode as before. Chosen targets at stored containers must be kept in the memory to proceed them automatically after power failure restart.

All components of the pneumatic tube conveyor are constantly monitored; the operating software has to be based on action reaction control for any device. The status of each device can be checked by the master control unit. A test program must be included to automatically check, move and supervise all of the system's devices, or specific selected devices, by access via service code from the Station control panel.

During both normal operation and testing, all devices inform the master control unit that the selected functional position has been reached. This ensures that this position truly has been reached. The system is designed in such a way that it does not allow the unobserved pivoting of devices.

The system has to come with an efficient fault-clearance program that automatically recognizes operating errors, power failures, time-out errors and other system errors. It also allows the system to continue functioning; there is no need for the operating personnel to intervene.

Facility to redirect empty containers which have exceeded the pre-allocated distance limit to a Station for maintenance to be carried out shall be provided.

If required the main control unit should be able control more than 1 carrier in the single line (Multiple carrier line) to increase the capacity of the system.

It should include the following:-

- Main Control Unit Hardware for main controller, for maximum of 24 bus systems, for systems up from 128 devices and transfer zone.
- Main Control Unit Hardware - Router for "Main Control" with 4 ports for connection of several Main Control Units.
- Patchable for connection router to Main Control
- Main Control Unit – Dongle
- UPS Uninterruptable Power Supply for PC-Monitoring
- Software package for main controller includes the following:-
  - Software for one Line,
  - Extension Software for further lines,
  - Software for Multiple Carrier Transport,
  - Software for Code-Tag System/Transponder System,
  - Software for Scheduled On/Off/Follow me events of Individual Devices,
  - Software for Visualization & Editor for 1 Client,
  - Software for History & Evaluation,
  - Software for Carrier Maintenances,

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Tube Message software,  
Software for Device Maintenance,  
Software for Individual Programming of Send/Receive Permissions for Users And /Or Groups Of Users,

- Patchable for Connection PC/Laptop to Power Control
- Power Supply Unit,
- Power Supply Kit External,
- Power Supply connecting cable for Power Control.
- Keyboard SCB2000/3 – Usable for Desktop Installation Only

**2.4.2 Blower:**

It should have a separate Blowers 2.3 kW, 3 phase 400v/50Hz, 2850 rpm, 220 mbar pressure, 5.1 m<sup>3</sup>/min for flow rate, with low noise, unidirectional rotation with electronic air switch to switch between compressed air and vacuum.

Each blower should be provided with Frequency Converter for Control of slow speed for sensitive laboratory samples by frequency control of Compressor. The blower should be set go up to 75Hz with the help of Frequency Converter.

Frequency converter should help the system to run on blowers of 2.6 Kw.

It should be provided with all the mounting accessories and soundproof enclosure.

**Station 160mm - Pass Through Type:**

The Pneumatic Station should be designed as a fully automatic dispatch and receiving unit and used as pass-through station.

The Pneumatic Station should be able to send and receive carriers.

The conveying direction of the carriers should be both sided (single tube reversing principle).

Inserting a carrier into the Pneumatic Station and selecting a target number should be possible independent from system status.

The carrier should be loaded on the top side of the Pneumatic Station.

The Pneumatic Station should be controlled by the use of the integrated Touch Panel Display for the following features:

1. 7” touch screen display with multifunctional operation screens

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2. Touch panel operation via finger, safety gloves or styluses
3. Individual programmable user profiles and customized hotkeys
4. Individual authorization levels for personalized users profiles
5. Touch screen surface protection for easy cleaning addressees are individually programmable; Search button and addressee index simplify the usage.
6. Bar Code Reader for Pharmacy Stations and Blood Bank Stations

The Pneumatic Station should be Steel made, maintenance free gear mechanism, with self-adjusting optical switches, with self-adjusting maintenance free gaskets for noise less operations, contact less sensing of the unit positions. There should not be any air exiting at the pneumatic station. With RFID readers for carrier ID and inventory, this should ensure automatic carrier redistribution to its home address & also non-acceptance of any items than authorized carrier.

The Pneumatic Station should have Air cushioned soft landing facility for arriving carrier to protect samples. Provided with carrier rack and receiving basket with cushion.

Dimensions: (80 x 50 x 50 cm) Approx. to occupy least possible space.

**2.4.3 Multi Receive and Multi Send Station for Laboratory and Pharmacy:**

The Pneumatic Station should be able to send and receive carriers from the same unit.

Inserting a carrier into the pneumatic station and selecting a target number should be possible independent from system status.

It should control the condition of the receiving station when sending to the selected receiving station is possible.

It should be Microprocessor-controlled.

The Lab and Pharmacy should be provided with Multi Receive and Multi Send Station to handle bulk loads.

It should be designed as a fully automatic dispatch and receiving unit and can only be used as end station.

The Pneumatic Station should be Steel made, maintenance free gear mechanism, with self-adjusting optical switches, with self-adjusting maintenance free gaskets for noise less operations, contact less sensing of the unit positions. With RFID readers for carrier ID and

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inventory, this should ensure automatic carrier redistribution to its home address & also non-acceptance of any items than authorized carrier.

It should be built in a way that after a power failure it is self-examining and if necessary self-repairing.

It should have Air cushioned soft landing facility for arriving containers to protect samples.

It should be provided with carrier rack & PVC Slide bend, sliced from the top for soft landing of the samples.

Dimensions: 100 (H) x 32(W) x 30(D) cm

**2.4.4 Station 160mm – End Type:**

The Pneumatic Station should be designed as a fully automatic dispatch and receiving unit and used as end station.

The Pneumatic Station should be able to send and receive carriers.

Inserting a carrier into the Pneumatic Station and selecting a target number should be possible independent from system status.

The Pneumatic Station should be controlled by the use of the integrated Touch Panel Display for the following features:

- 7” touch screen display with multifunctional operation screens

- Touch panel operation via finger, safety gloves or styluses

- Individual programmable user profiles and customized hotkeys

- Individual authorization levels for personalized users profiles

- Touch screen surface protection for easy cleaning addressees are individually programmable; Search button and addressee index simplify the usage.

- Bar Code Reader for Pharmacy Stations and Blood Bank Stations

The Pneumatic Station should be Steel made, maintenance free gear mechanism, with self-adjusting optical switches, with self-adjusting maintenance free gaskets for noise less operations, contact less sensing of the unit positions. There should not be any air exiting at the pneumatic station. With RFID readers for carrier ID and inventory, this should ensure automatic carrier redistribution to its home address & also non-acceptance of any items than authorized carrier.



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It should have Air cushioned soft landing facility for arriving carrier to protect samples. Provided with carrier rack and receiving basket with cushion.

Dimensions: (60 x 50 x 50 cm) Approx. to occupy least possible space.

**2.4.5 Station 160mm – Linear Automatic unload:**

The system should be provided with a Linear Automatic Unload Station.

It should be Ultra Compact Unit.

It should connect two multiple carrier lines which should provide continuous IN and OUT Traffic.

It should save 2 - 24/7 full time work equivalents in peak time.

It should save 1 – 24/7 full time work equivalent rest of day.

It should save tremendously space at Laboratory.

It should avoid risk of cross contamination.

It should be Fully automatic high capacity sending and receiving station.

When the carrier comes into the pneumatic station it should automatically open inside the stations (without exiting the station), sample bags should slide out, the carrier should automatically return to its origin pneumatic station based on RFID transponder technology.

The Pneumatic Station should be Steel made, maintenance free gear mechanism, with self-adjusting optical switches, with self-adjusting maintenance free gaskets for noise less operations, contact less sensing of the unit positions. With RFID readers for carrier ID and inventory, this should ensure automatic carrier redistribution to its home address & also non-acceptance of any items than authorized carrier.

It should have Air cushioned soft landing facility for arriving containers to protect samples above the station, with the help of slide gate.

It should be provided with carrier rack & SS Slide for sample soft slide-landing.

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**2.4.6 Inter Connector Zone System:**

The system is provided with the State of the Art “Inter Connector Zone System” which provides an excellent throughput and has fast transfer capabilities.

Inter Connector Zone is the only system:

That allows the Carrier containing Emergency Samples to overtake the other carriers.

Has chambers with extra empty carriers and any user can call for it from the station, by simply dialing a number.

That allows 9 carriers to shoot out from transfer zone, simultaneously.

Having 32 storage units for different carriers.

Keeps the storage units vacant for the Emergency Carriers.

Having separation unit for multicarrier transport for wall mounting.

Having concentration unit for multicarrier transport.

Occupies a less space.

Can connect up to 14 lines.

**2.4.7 Forwarding Tube:**

Forwarding tube should include the cost of cable and other tube mounting accessories as are required for networking between Pneumatic Stations. Every Station and Diverter must provide transparent tube.

The forwarding tube should be made of PVC of 160 mm OD x 153.6 mm ID. Good Physical tensile strength, general medium density, absorption of water, combustibility self-extinguishing.

**2.4.8 Bends:**

It should be of 90 deg. with radius not more than 800 mm (centre) with length approx 1.5 mtrs, for optimal space utilization, grey colour.

**2.4.9 Composite System Cable:**

It should not be localized and it should be imported with company brand name marked.

**2.4.10 Inserts:**

Eprouvette Bag PVC for holding vacutainers.

**2.4.11 Diverter:**

The forwarding tube diverter must provide one incoming and three outgoing delivery tubes. The Diverter must provide a smooth connection between incoming and outgoing tube, to prevent impact on transported items. A maintenance free belt driven rotary oscillating pipe has

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to be pneumatically sealed to the device housing, to prevent air loss, self-adjusting Teflon gaskets have to provide airtight operation in vacuum and pressure operation.

Dimensions: 115(H) x 50(W) x 40(D) cm

**2.4.12 Carriers:**

Carrier for hospital use should be with easy to operate swivel top mechanic, sealed load chamber, to prevent contamination of tubing in the unlikely event of spill of transported goods. This must be realized only by closing the sealed swivel top mechanism.

The "closed" position should be fastened in a lock-in position. The lid should be kept in this position by a spring force and has to be equipped with seals. Furthermore the design of the container must be done in a way that an open carrier can't be sent. Any carrier has to be equipped with two free programmable data transponder, system according to send receive device used by the manufacturer in the Pneumatic Stations send magazines. Transponders are used to electronically identify any carrier by a unique address and to offer the user automatic redistribution to home Pneumatic Station and optionally a second address for dedicated locations or special carrier use. The carriers must provide a easily visible wear and tear resistant colour coding system, which must be changeable also on site by the user without damage and not requiring special tools.

Inside-loading-dimension for Carrier Ø 160mm swivel top Ø115 x 400mm

Outer-dimension for Carrier Ø 160mm swivel top Ø150 x 420mm

With suitable holders of vaccutainers and a pair shuttle bung for each container.

**2.4.13 Automatic Unload Carriers:**

Automatic Unload carrier should be such that no manual handling be required.

The carrier should automatically unload at the Pneumatic Station then automatically close & go back to the origin Pneumatic Station.

The system should not accept an open carrier.

The carrier should also be able to open manually.

It should have at least two free programmable data transponder system.

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Inside-loading-dimension for System Ø 160mm swivel top Ø110 x 260mm

**2.4.14 RFID**

The system shall be provided with RFID as a standard solution, to ensure proper management of Carriers including return of empty carriers. It should prevent anything other than the carrier to enter the system.

**3. Maintenance and Training requirements for systems, machines and equipment**

The Contractor shall maintain the system during the defects liability period. The Contractor shall see to it that all the warranty and guaranty cards are properly filled and duly submitted to the Employer along with their maintenance manuals.

The Contractor shall train the staff of the Employer for running the system. The Contractor shall make arrangements for demonstration & trial run before commissioning of the system.

Operation and Maintenance Manual shall be supplied to the Employer. These manuals shall contain in sufficient detail, the procedures for operation and the maintenance schedule for the all the components.

**4. Periodical Progress review**

Periodical review of the progress of the project shall be carried out in every 21 days and at any time desired by the Employer. For this purpose the Contractor shall prepare and submit the progress reports as stated in the Contract.

The contractor shall keep at site a latest copy of the following:

- a. Contractor's Documents that shall include but not limited to the technical documents as follows:
- b. Construction Drawings Detailed including any modifications etc.
- c. List of Codes, standards and specifications being followed.
- d. Documents required to satisfy all regulatory approvals,
- e. A complete set of "as-built" records of the execution of the Works, showing the exact as-built locations, sizes and details of the work as executed.
- f. Any other document which the Engineer instructs from time to time
- g. Design documents as mentioned above.
- h. Operation and Maintenance Manuals
- i. Records of Contractor's Personnel, Labour and Equipment
- j. Copies of quality assurance documents, test results and certificates of Materials
- k. List of Variations, notices given under Sub-Clause 2.4 (Employer's Claims) and notices given under Sub-Clause 20.1 (Contractor's Claims);

**5. Quality Control**

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The Contractor must ensure that the works conform to the quality standards and to the satisfaction of the Employer. The contractor shall submit his quality plan in accordance with the above

The works and materials shall be subject to tests from time to time as per best practices in the industry. Wherever mentioned in the Contract, the tests must be carried out at the Contractor's expense. The materials shall be procured from reputed vendors approved by the Engineer. The Contractor must also supply samples to the Engineer for his approval and also carry out the tests as and when required by the Engineer.

**6. Tests after completion**

After completion of the project, the Employer may carry out the tests after completion, which shall be carried out under normal operating conditions to assure that the system performs well under normal operating conditions.

These tests will include but not limited to:

- i. Running of equipment and system as a whole to a minimum of 15 days
- ii. System specific tests and equipment specific test
- iii. Any other test which Employer intends to carry out to check the stability and reliability of the system.

Any defects if pointed out in the tests after completion shall be ratified at Contractor's expense and within time as deemed reasonable by the Engineer.

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