TERMS OF REFERENCE

CPDMO10000930

Project	:	**Supply and Installation of a Cargo Lift for College of Medicine – Department of Anatomy, University of the Philippines Manila**
Location	:	Pedro Gil, Ermita Manila U.P. Manila Campus

1. PROJECT LOCATION

The proposed Elevator shall be installed and located inside the existing hoist way at the College of Medicine – Department of Anatomy.

2. CONCEPTUAL DESIGN

The Department of Anatomy has an existing hoistway used for transporting cadavers. It has an approximate dimension of, 1.7 m in length X 1.9 m width and elevation of 3.5 m, 3.0m, and 3.0 m floor respectively (approx. 9.5m total travel distance). Winning contractor shall further conduct comprehensive evaluation on the dimension and elevation and fit their proposed hoist elevator unit to the existing elevator shaft. The cargo lift supply and install contractor shall install the appropriate lift in accordance to the specification and requirement by the end user. The hoistway shall also be provided with sump pit pump so nthere will be an option to pump out water in case there is an accumulation of water.

3. PROPOSAL STRUCTURE AND EVALUATION

The procurement of the freight elevator unit and installation project including its processes, requirements for eligibility, bid proposal structure and evaluation by the Infrastructure Bids and Awards Committee of the University of the Philippines in Manila, shall be governed by the Implementing Rules and Regulations of RA 9184 or the Government Procurement Reform Act.

3.1. THE TECHNICAL PROPOSAL

The first envelope, containing the Technical Proposal, shall be comprised of all the required documents for infrastructure projects under Section 25.2 (b) of the IRR of R.A 9184 and the following additional documents:

3.1.1. Design and installation methods

Emphasis shall be made on the installation methods that best befit the cost and compressed duration of the project. Rapid construction, prefabricated and/or modular systems, with a proven track record and history of past elevator projects, shall only be accepted for evaluation.

3.1.2. Safety features and value engineering analysis of design and installation method.

Prospective bidders shall prepare a safety and value engineering analysis report of their proposed elevator unit to be supplied and installed and method to be applied for the ELEVATOR INSTALLATION PROJECT. Importance shall be made on the following criteria:

1. Cost-saving (Efficient in terms of operating cost)

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OCT 21 2016

2. Safety features may include governor, braking mechanism, adequate size and no. of wire cables, large metal apron, presence of fireman's switch and other, alarm, communication system, and ventilation.

3.2. THE FINANCIAL PROPOSAL

The second envelope, containing the Financial Proposal, shall be comprised of all the required documents for infrastructure projects under Section 25.3 (b) of the IRR of R.A 9184, enumerated as follows:

3.2.1. Lump sum bid prices which shall include the detailed engineering cost in the Bill of Quantities in the prescribed Bid Form, not to exceed **PhP 1,900,000.00**
3.2.2. Detailed estimates including a summary sheet indicating the unit prices of installation materials, labor rates, testing and equipment rentals in coming up with the bid; and
3.2.3. Cash flow by the quarter and payments schedule.

4. SCOPE OF WORK AND SPECIFICATIONS

General Conditions ;

4.1. The winning contractor shall furnish all the necessary installation materials, labor, tools, equipment and supervision for the completion of the project as indicated in the plans, specifications and contract documents.
4.2. The winning contractor shall only supply a brand new, non-reconditioned elevator unit intended for the said project. (Preferably Machine Room less or suitable for cadaver lifting)
4.3. The winning contractor shall secure all government requirements such as installation and operating permits as prerequisites for final completion and payments.
4.4. **One hundred fifty (150) calendar days** for the installation of the new unit, including all electrical requirements, test run and other related works for the completion of the project, note that the installation period shall commence on the receipt of imported equipment (Elevator Unit), except for the local installation materials.
4.5. Prepare Technical specification and installation lay-out drawing and other necessary drawings showing the pit clearances, guide rail, car and shaft plan and other necessary detail of the said project.
4.6. Prepare the scope of work for construction based on the prepared bill of quantities and cost estimates while fitting within the approved budget.
4.7. Coordinate with all offices and agencies concerned, within and outside the University regarding utility connections, permits, licenses and other requirements needed.
4.8. Coordinate and present the status of the design phase to the client and the Campus Planning, Development and & Maintenance Office.

TECHNICAL SPECIFICATION

The type of elevator to be supplied and installed in the existing Hoist-way at **Department of Anatomy** should be brand new, non-reconditioned passenger, traction type preferably of machine room-less, or any hoisting mechanism suitable for cadaver lifting with two sides opening with vertical sliding door/manual opening and closing. The elevator system should have at adequate number of wire ropes for safety reasons and sufficient weight of counterweight (Usually half of the full load capacity). Hoist-way door may be manually operated but with safety interlock to prevent accident movement during loading and unloading of cadavers.

Traction motor mechanism should have braking system capable of holding 125% of its total load capacity.
The pit of the elevator shaft should have oil type buffer or spring type cylinder.

SPECIFICATIONS

One (1) unit 1000 KGS with 3 stops Cargolift
Brand new, non-reconditioned and ready to use

TECHNICAL SPECIFICATION:

A. Type.....Cargo Lift/Freight Elevator
B. Number of unit.....One (1)
C. Load capacity.....1000 kgs. (15- cadaver capacity)
D. Travel speed..... 6 m/min**
E. Number of stop.....Three (3) stops (Approx. 9.6M)
F. Number of openings; .....Three (3)(ground, second and third floors only)
G. Rise /travel height .....9.6 m ±*
H. Hoistway size..... W: 1700mm x D: 1.900mm *
I. Car Wall.....Sidings fixture; 3 sides welded wire mesh-Enclosure without steel structure.
J. Ceiling..... .Painted Steel Sheet
K. Flooring.....Checkered Steel Plate*
L. Door.....Two sides opening with vertical sliding door manual opening / closing
M. Fixtures.....Button Type
N. Power requirement .....220V, 3Ø, 60Hz including lighting and ventilation fan if any.
O. 1 Set Elevator Car Assembly consisting of Car Frame structure, platform, safety gear assembly, guide shoe, Car Panel Assembly, Accordion Door Assembly
P. 1 Set Electrical system consisting of Main controllers, Breakers, Hall Button Limit switches and electrical wiring going to the main electrical panel.

*Winning bidder shall conduct confirmatory measurement
** may vary depending on the recommendation of the supply and install contractor.
*** the hoistway or elevator shaft is originally designed for two passenger type elevator installed side by side , however only unit will be installed for this particular project.

Note: Car (interior and exterior), and door-car design shall be based on the Winning Bidder's Offer, which the end-user shall choose/decide, especially color scheme, including door landing design. Car dimensions and signal indicator for floor and direction shall be decided by the end-user and technical administrator Campus Planning, Development and Maintenance Office (CPDMO) .

LOCALLY SUPPLIED MATERIALS**:

1. Power receiving panel board:
   Main protection: 3-pole, 100Amp., 230 volts industrial type, moulded case circuit breaker.
   Main conductor,
   3# 30mm^2, THHN insulation stranded wire,
   Inside 50 mm Ø RSC or PVC conduit to be tapped at appropriate building power source. (approximate length, 150 meters)
2. Conductor at load :(Traction Motor)
   3# 5.5 mm^2, THHN insulation stranded wire, inside 1/2" Ø conduit or PVC.
3. Conductor at load: (Lighting and ventilation)
   Lighting: 2# 3.5 mm^2, THHN insulation stranded wire, inside 1/2" Ø PVC pipe
   Exhaust fan: 2# 3.5 mm^2, THHN insulation stranded wire, inside 1/2" Ø PVC pipe
4. Circuit breaker: 3-pole, 60-ampere, 230 V, bolt-on type in a weather-proof metal enclosure.
   2-Pole, 30-ampere, 220V, bolt -on type,
5. Plastering, grouting, plain cement finish must be portland Cement, S-1 sand and G-1 gravel. Gravel and sand must be cleaned and washed before application.
6. All concrete surface be applied with latex paint, at least 3 coatings.
7. All wooden and metal parts must be applied with paint ,
   . Primer paint should be applied flatwall enamel for wooden and red lead oxide paint metal.
8. Standard-scaffolding metal materials for conveyance purposes.
9. Hoisting tools (Chain-block suited for heavy load material and equipment

5. WORK SITE :

5.1 Winning contractor shall provide appropriate means of access to the existing elevator shaft which will allow the passage of major elevator parts such as control panel, traction machine, and other related parts such as steel scaffolding, platform , catwalk, hoisting equipment, etc. needed in the said installation of elevator unit. Precautionary measure on safety handling procedures by the contractor must be observed. The contractor shall provide their workers appropriate and approve type personal protective equipment especially for specialty work like welding and painting operation.

5.2 Winning contractor shall supply appropriate and necessary power receiving panel for line and load side feeder line to be tapped/connected to end-user's existing power source. Power source shall have the following specification: 230V, three-phase, 60 amperes,60 Hz. For elevator unit and for lighting source 220V, single phase, 60 Hz. or depending on the proposed system design and power requirement of the elevator unit to be supplied.

5.3 Provision of appropriate ventilation/exhaust fan or equipment at machine and control panel rooms including emergency communication, such as intercom, or any adequate emergency warning means and water sump pump at pit of elevator if necessary.

THE SUPPLY AND INSTALLATION CONTRACTOR'S GENERAL RESPONSIBILITY

The CONTRACTOR shall ensure that all works at the stages of design construction restoration of affected areas, and testing and commissioning shall be carried out efficiently and effectively.

The CONTRACTOR shall take into consideration the academic calendar and critical dates and occasions within the University activities, in order to avoid the disruption of such activities due to construction activities such as closure of water and power supply and non-usage of the existing roads.

The ELEVATOR SUPPLY AND INSTALL CONTRACTOR shall be in the elevator installation business and with at least five (5) year experience in the field.
The ELEVATOR SUPPLY AND INSTALL CONTRACTOR will be held accountable for accidents that might occur during the execution of the project. The CONTRACTOR is required to install warning signs and barriers for the safety of the general public and the avoidance of any accidents and provide appropriate and approved type personal protective equipment for their construction personnel.

The ELEVATOR SUPPLY AND INSTALL CONTRACTOR shall be professionally liable for the design and shall submit a signed and sealed copy of the approved construction documents to form part of the Contract Documents.

All works designed, supplied and installed should be guaranteed to seamlessly fit into the overall system of the UP Manila- Department of Anatomy College of Medicine Building.

6. INSTALLATION OF CADAVER CARGO LIFT

PRE-INSTALLATION PHASE

Secure all necessary permits necessary prior to installation. All incidental fees shall be included in the cost estimate of the elevator installation project.

Provide all other necessary documents that shall be required by the end-user or the Campus Planning, Development and & Maintenance Office.
The winning contractor may preferably submit Construction Safety and Health Program specific for the proposed supply and installation project.

INSTALLATION PHASE

Implement all works indicated in the approved installation drawing plan and documents. All revisions and deviation from the approved plans, especially if it shall impact the overall cost of the project, shall be subject for approval.

Install the cargo lift and its necessary auxiliaries, complete with finishes, resulting in operable, usable and in compliant to applicable code and standards for cadaver cargo lift.

Conduct all necessary tests and issue reports of results.

POST-INSTALLATION PHASE AND COMMISIONING

Preparation of as-built plans

Turn-over of all manuals, certificates and warrantees of installed items.

Actual test and commissioning of the newly installed elevator unit.

7. OVERALL PROJECT TIME SCHEDULE

The winning contractor on the supply and installation of elevator unit shall propose the most reasonable time schedule for the completion of the project. It is expected that this period will not exceed One hundred fifty (150) calendar days from the date of the issuance of the Notice to Proceed (NTP).

8. CODES AND STANDARDS

The project shall be designed, engineered, installed, tested, commissioned and handed over in conformity with the general policies of the University of the Philippines and with the latest editions of the Philippine Society of Mechanical Engineer Code and other relevant codes and standards on elevator/cargo lift installation and construction.

9. INSTALLATION AND WORKMANSHIP

Personnel responsible for the Supply and Installation of cargo lift project should be specialists and highly skilled in their respective trades, performing all labor according to first-class standards. A full time supervisor shall be assigned at the job site during the construction of the project. All work to be subcontracted shall be declared by the Supply and Install contractor and shall be approved by the University and its respective technical offices. Tapping for utilities such as power supply, shall be coordinated with their respective utilities / service provider / companies, and all works involved, including access to utilities tapping point, excavation, removal of obstructions, concrete breaking, and restoration of affected areas, shall be coordinated and included in the scope of work and cost of the project.

10. GUARANTEE OF QUALITY AND WARRANTY

The winning contractor on the supply and installation of elevator unit shall guarantee that the unit and its accessories to be supplied and installed are brand new, in good working condition and free from any defects and meet the appropriate standard specifications agreed upon.

The winning contractor on the supply and installation of elevator unit shall provide a warranty period of at least one (1) year or more from date of acceptance against defect on materials and workmanship. This warranty covers the supply of parts and labor free-of-charge. The contractor shall also propose an after sale service cost and frequency of maintenance in case the warranty period expires.

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24 NOV 2016

FUND AVAILABLE FOR P 4,900,000.-
CHARGEABLE AGAINST 20401010000-970 (184)

Chief Accountant
UP Manila 10/25/16

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24 NOV 2016