



UNIVERSITY OF VAVUNIYA
Procurement of Goods
Under
National Shopping Procedures

Invitation of Bids
For
SUPPLY, DELIVERY, INSTALLATION, TESTING,
COMMISSIONING AND MAINTENANCE OF
1000kg LIFT FOR LIBRARY.

Procurement No: UV/F/NCB/03/2024

From:
The Chairman,
Department Procurement Committee
University of Vavuniya,
Pambaimadu,
Vavuniya.

To:

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Section I. Instructions to Vendors (ITV)

| A: General | |
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| 1. Scope of Bid | 1.1 The Purchaser named in the Data Sheet invites you to submit a quotation for the supply of Goods as specified in Section III Schedule of Requirements. Upon receipt of this invitation, you are requested to acknowledge the receipt of this invitation and your intention to submit a quotation. The Purchaser may not consider you for inviting quotations in the future, if you failed to acknowledge the receipt of this invitation or not submitting a quotation after expressing the intention as above. |
| B: Contents of Documents | |
| 2. Contents of Documents | 2.1 The documents consist of the Sections indicated below. <ul style="list-style-type: none"> • Section I: Instructions to Vendors (ITV) • Section II: Data Sheet • Section III: Schedule of Requirements • Section IV: Technical Specifications & Compliance with Specifications • Section V: Quotation submission Form(s) • Section VI: Standard Forms |
| C: Preparation of Quotation | |
| 3. Documents Comprising your Quotation | 3.1 The Quotation shall comprise the following: <ul style="list-style-type: none"> (a) Quotation Submission Form and the Price Schedules; (b) Technical Specifications and Compliance with Specifications. |
| 4. Quotation | 4.1 The vendor shall submit the Quotation Submission Form using the form furnished in Section V. This form must be completed without any alterations to its format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. 4.2 Alternative offers shall not be considered. The vendors are advised not to quote different options for the same item but furnish the most competitive among the options available to the bidder. |
| 5. Prices and Discounts | 5.1 Unless specifically stated in Data Sheet, all items must be priced separately in the Price Schedules. 5.2 The price to be quoted in the Quotation Submission Form shall be the total price of the Quotation, including any discounts offered. 5.3 The applicable VAT shall be indicated separately. 5.4 Prices quoted by the vendor shall be fixed during the vendor's performance of the Contract and not subject to variation on any account. A bid submitted with an adjustable price shall be treated as non-responsive may rejected. |

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| 6. Currency | 6.1 The vendors shall quote only in Sri Lanka Rupees. |
| 7. Documents to Establish the Conformity of the Goods | <p>7.1 The vendor shall furnish as part of its quotation the documentary evidence that the Goods conform to the technical specifications and standards specified in Section IV, "Technical Specifications & Compliance with Specifications".</p> <p>7.2 The documentary evidence may be in the form of literature, drawings or data and shall consist of a detailed item by item description of the essential, technical and performance characteristics of the Goods, demonstrating substantial responsiveness of the Goods to the technical specifications, and if applicable, a statement of deviations and exceptions to the provisions of the Technical Specifications given.</p> <p>7.3 If stated in the Data Sheet the vendor shall submit a certificate from the manufacturer to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in Sri Lanka.</p> |
| 8. Period of Validity of quotation | 8.1 Quotations shall remain valid for the period of sixty (60) days after the quotation submission deadline date. |
| 9. Format and Signing of Quotation | 9.1 The quotation shall be typed or written in indelible ink and shall be signed by the vendor or by a person duly authorized to sign on behalf of the vendor. |
| D: Submission and Opening of Quotation | |
| 10. Submission of Quotation | <p>10.1 Vendors may submit their quotations by post or by hand in sealed envelope addressed to the Purchaser bearing the specific identification of the contract number.</p> <p>10.2. If the quotation is not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the quotation.</p> <p>10.3 All the bids should be accompanied by a bid security as specified in the Data Sheet. Quotations without the valid bid security will be rejected.</p> <p>10.4 Unregistered Suppliers with the University of Vavuniya can also participate to the bid, subject to provide business registration certificate along with the quotation.</p> |

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| 11. Deadline for Submission of Quotation | 11.1 Quotation must be received by the Purchaser at the address set out in Section II, "Data Sheet", and no later than the date and time as specified in the Data Sheet. |
| 12. Late Quotation | 12.1 The Purchaser shall reject any quotation that arrives after the deadline for submission of quotations, in accordance with ITV Clause 11.1 above. |
| 13. Opening of Quotations | <p>13.1 The Purchaser shall conduct the opening of quotation in public at The address, date and time specified in the Data Sheet.</p> <p>13.2. A representative of the bidders with their identification may be present and mark his attendance.</p> |
| 14. Clarifications | <p>14.1 To assist in the examination, evaluation and comparison of the quotations, the Purchaser may, at its discretion, ask any vendor for a clarification of its quotation. Any clarification submitted by a vendor in respect to its quotation which is not in response to a request by the Purchaser shall not be considered.</p> <p>14.2 The Purchaser's request for clarification and the response shall be in written.</p> |
| 15. Responsiveness of Quotations | <p>15.1 The Purchaser will determine the responsiveness of the quotation to the documents based on the contents of the quotation received.</p> <p>15.2 If a quotation is evaluated as not substantially responsive to the documents issued, it may be rejected by the Purchaser.</p> |
| 16. Evaluation of quotation | <p>16.1 The Purchaser shall evaluate quotation by each item (100% required quantity) that has been determined, to be substantially responsive.</p> <p>16.2. To evaluate a quotation, the Purchaser may consider the following:</p> <ul style="list-style-type: none"> (a) the Price as quoted; (b) price adjustment for correction of arithmetical errors; (a) Price adjustment due to discounts offered. <p>16.3 The Purchaser's evaluation of a quotation may require the consideration of other factors, in addition to the Price quoted if stated in Section II, Data Sheet. These factors may be related to the characteristics, performance, and terms and conditions of purchase of the Goods.</p> <p>16.4 The Chairman, Department Procurement Committee (DPC), University of Vavuniya, shall have the right to accept or reject any bid and at his discretion either to increase or decrease by 25% of the actual quantity to be purchased.</p> |

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| <p>17. Purchaser’s Right to Accept any Quotation, and to Reject any or all Quotations</p> | <p>17.1 The Purchaser reserves the right to accept or reject any quotation, and to annul the process and reject all quotations at any time prior to acceptance, without thereby incurring any liability to bidders.</p> |
| <p>F: Award of Contract</p> | |
| <p>18. Acceptance of the Quotation</p> | <p>18.1 The Purchaser will accept the prices of the items from the quotation of the vendor whose offer has been determined to be evaluated bid based on the price, quantity & other condition.</p> |
| <p>19. Notification of acceptance</p> | <p>19.1 Prior to the expiration of the period of validity of quotation, the Purchaser will notify the successful vendor, in writing, that the bid has been accepted.</p> |
| <p>20. Performance Security</p> | <p>20.1 Amount of Performance Security required is 10% of the Initial Contract Price.</p> <p>20.2 Performance security shall be issued by an agency acceptable to Employer using the form for Performance Security (unconditional on demand guarantee) included in this document. This deposit can be made by way of a bank guarantee valued for 90 days.</p> <p>20.3 The agency acceptable to Employer is a Licensed Commercial bank operating in Sri Lanka.</p> |
| <p>21. Liquidated Damages</p> | <p>21.1 If the Supplier fails to deliver part or all of the Goods or perform the Related Services within the given period as specified in the Contract, the Purchaser may deduct a sum equivalent to 0.05 % per day of the price of the delayed supply or unperformed Services from the Contract Price, as liquidated damages,. Maximum deduction of the percentage is 10% of the contract value and once the maximum is reached, the Purchaser may terminate the Contract.</p> |
| <p>22. Payment</p> | <p>22.1 No transport charges will be made.</p> <p>22.2 Payment will be made after supplying and installing of the items according to the specifications and other conditions stipulated in the bidding document.</p> <p>22.3 <u>1st Installment:</u> 90% of the contract value shall be paid after inspection and the satisfactory completed and supply of other items in the Procurement Notice.</p> <p><u>2nd and last Installment:</u> The balance 10% of the contract value shall be paid after expiry of <u>sixty days</u>.</p> <p>Payment will be made by cheque drawn in favour of the Business name of the bidder with “Account Payee only” Crossing</p> |

Section II: Data Sheet

| ITV Clause Reference | | | | | |
|--|---|------|---------------------------|--|----------------|
| 1.1 | The Purchaser is: - The Chairman, Department Procurement Committee, University of Vavuniya. Address: - Pambaimadu , Vavuniya. | | | | |
| 7.3 | Manufacture’s Authorization is required as attached format. | | | | |
| 10.3 | <p>Bid security shall be</p> <ul style="list-style-type: none"> • Issued by an agency acceptable to Employer using the form for bid security (unconditional on demand guarantee) included in the bid document for 120 days. • For an amount given below: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;">Item</th> <th style="text-align: center;">Bid security amount (Rs.)</th> </tr> </thead> <tbody> <tr> <td>Supply, delivery, Installation, Testing, Commissioning and Maintenance of 1000kg Lift for Library.</td> <td style="text-align: center;">Rs. 100,000.00</td> </tr> </tbody> </table> • The agencies acceptable to Employer is a Licensed Commercial bank operating in Sri Lanka; or Instead of Guarantee, Cash deposit at Shroff counter, University of Vavuniya is acceptable. | Item | Bid security amount (Rs.) | Supply, delivery, Installation, Testing, Commissioning and Maintenance of 1000kg Lift for Library. | Rs. 100,000.00 |
| Item | Bid security amount (Rs.) | | | | |
| Supply, delivery, Installation, Testing, Commissioning and Maintenance of 1000kg Lift for Library. | Rs. 100,000.00 | | | | |
| 11.1 | <p>Address for submission of Quotations is: The Chairman, Department of Procurement Committee, University of Vavuniya, Pambaimadu, Vavuniya.</p> <p>Bids should be submitted in duplicate and in separate envelopes. Both envelopes should be enclosed in one and securely sealed cover and the following words should be clearly written on the top left-hand corner of the envelopes in which the bids are enclosed as appropriate “Procurement of Supply, delivery, Installation, Testing, Commissioning and Maintenance of 1000kg Lift for Library UV/F/NCB/03/2024 – 23rd October, 2024 at 2.00 pm</p> <p>Deadline for submission of quotations is: 23rd October, 2024 at 2.00 pm.</p> | | | | |
| 013 | <p>The quotations shall be opened at the following address: 23rd October, 2024 at 2.00 pm.</p> <p>The Board Room, University of Vavuniya, Pambaimadu, Vavuniya.</p> <p>The items should be delivered to the following address: University of Vavuniya, Mannar Road, Pambaimadu. T. Phone No. 0242220299</p> | | | | |
| 16.1 | <p>Other factors that will be considered for evaluation are:</p> <ol style="list-style-type: none"> i) Required specification ii) Warranty period if any iii) After sales service if applicable iv) Experience in relevant business/Field | | | | |

Section III: Schedule of Requirements

| Item No | Description of Goods | Qty | Unit | Final Destination | Delivery Date | |
|---------|--|-----|------|--|---|-------------------|
| | | | | | Latest Delivery Period | Bidder's Response |
| 01 | Supply, delivery, Installation, Testing, Commissioning and Maintenance of 1000kg Lift for Library. | 01 | Nos | Library, University of Vavuniya, Mannar Road, Pambaimadu. | 6-8 weeks from the date of award of the contract | |

Signature of the Bidder:

Name of the Bidder.....

TP No.

Date:

Rubber Stamp:

Section IV: Technical Specification & Compliance

University of Vavuniya, Sri Lanka.

Technical Specification for “LIFT – LIBRARY BUILDING”

GENERAL TECHNICAL SPECIFICATION FOR LIFTS INSTALLATION

1.0 INTRODUCTION

This section consists of the general rules that apply to the design, manufacture, shop testing, delivery to site, erecting, commissioning, site testing, maintaining and handing over the material, equipment plant and services required for 01 Nos. 1000 kg, 60 m/min Passenger Lift to be installed at Proposed 3 storied Library Building University of Vavuniya.

The manufacturer of the lift equipment shall have at least ten (10) years' experience in the design, manufacture, installation and commissioning and maintenance of lifts. All equipment being supplied shall be suitable for operation under tropical conditions with ambient temperature up to 36 °C and relative humidity up to 90% but not both simultaneously.

1.1 LOCATION OF SITE

Proposed 3 storied Library Building University of Vavuniya.

1.2 STANDARDS

Unless otherwise specified, the whole of the works shall conform to the following standards:

*British Standard Specifications, in particular BS 5655 (all Parts)

*IEE Regulations for Electrical Equipment in Buildings

*Regulations and Recommendations of the Ceylon Electricity Board and the Sri Lanka Standards Institution.

Other recognized national or international specifications, not less exacting than those above may be used, provided the latest edition of such specification (in English) had been furnished with the tender and accepted.

1.3 DRAWINGS

The Contractor shall furnish the following documents, drawings, diagrams and schedules for approval by the Engineer.

(i) General arrangement drawings showing layout of lift well positions of all plant and equipment, ancillaries, cable trunking, conduits etc.

(ii) Loads on machine room floor slab, beams and pedestals.

(iii) Details of landing entrances.

(iv) Details of block-outs, holes and fixing devices to be incorporated in the civil works.

- (v) Details of car enclosure design, finishes, car and landing station panels, interior lighting and ventilation.
- (vi) Electrical wiring diagrams, schematics, layouts for the entire installation.
- (vii) Co-ordinated wiring/connection details between equipment and cables, showing terminal block coding, cable core size and identification.
- (viii) Operation and maintenance manuals.

Working diagrams shall be provided in respect of all electrical equipment and/or systems, which form part of the works. Under this contract, schematic layouts shall be presented in ladder or similar format such that it is possible to comprehend the operation of a particular system, the interconnections between various systems, and to identify the components, wiring/connections shown on the diagrams.

1.4 STEEL WORK

- (i) The Contract shall include supply and erection of the steel work required for the support of machines, sheaves, guides, door tracks, gear etc. complete. That which forms part of the structural steel work of the building will be provided by others.
- (ii) 2 Ton lifting hooks in Top Slab of the Lift Core will be provided by the civil contractor and will be positioned generally as shown in the Tender drawings but precisely as indicated by the lift contractor's installation drawings.
- (iii) A substantial galvanized steel cat ladder shall be provided as per BS Codes and fixed by the lift Contractor to give easy means of access to the pit.

1.5 TRACTION DRIVE

(i) Motor

The motor shall be specially designed to meet the severe load conditions encountered in lift service. It shall be suitable for local ambient conditions and shall have a high starting torque and low starting current characteristics.

The starting current shall not exceed 2.5 times the rated full load current of the motor and contractor shall specify in the specification, the rated full load current and the starting current of the offered motor.

The drive system shall incorporate all accessories and equipment to produce smooth starting, acceleration, running, deceleration and stopping characteristics for maximum riding comfort.

The motor shall be fitted with a forced ventilation unit and thermistors shall be incorporated in the motor windings to give protection against overheating.

The continuous duty cycle rating shall be as stated in the Appendices and the motor shall have a minimum of class F insulation.

The motor shall be coupled directly to the worm shaft and secured to the gearbox by flanged mountings to ensure accurate alignment. For quiet and smooth running, the motor shall be carefully balanced with its associated brake drum and worm shaft.

The speed of motors driving lift machines shall not exceed 1000 rpm. The machines shall run at all loads without appreciable noise or hum.

(ii) Winding Gear

The winding gear shall comprise an accurately machined steel worm and a phosphor bronze worm wheel operating in an oil bath in a sturdy cast iron casing.

The worm and its shaft shall be accurately machined from a single unit of high tensile strength, solid forged steel shafting. It shall be provided with a thrust ball bearing designed to take the thrust in both directions. The thrust bearing shall be removable without dismantling the machine.

Two self-aligning brake shoes lined with friction material shall act on the brake drum that shall be keyed to the worm shaft. The shoes, mounted on independent arms, shall be spring applied and electrically released and designed to be instantly and automatically applied in the event of interruption of the power supply from any cause.

The worm wheel shall be hobbled from a centrifugally cast bronze rim and shall be accurately fitted and bolted to the gear spider.

The traction sheave shall be fitted with an out board bearing.

1.6 CONTROLLER

The lift controller shall be of vertical, totally enclosed, sheet steel cubicle type with hinged door in front and screwed panels at the rear providing easy access to all components inside the controller. The enclosure shall be well ventilated by means of louvers or other means devised by the lift manufacturer. Adequate protection shall be provided to prevent the entry of harmful insects and vermin into the cubicles.

The panels shall contain contactors, relays selectors, timers, and transformers, fuses rectifiers and all apparatus associated with the control of the lift in the machine room.

The controller shall provide protection against the following:

- * No-volt and sustained under voltage
- * Phase reversal of the power supply
- * Overload
- * Failure of any one phase

The controller shall cut-off the current automatically, apply the brake and bring the car to a standstill in the event of the failure of any of the electrical safety devices. The controller circuits shall be designed to prevent the lift being operated by the main motor until all car and landing doors are closed, except within the levelling zone of the floor at which the lift is stopping.

The solenoids, magnetic brake and other magnetic devices shall operate on d.c. obtained through a full-wave rectifier. All operating coils shall be adequately rated, insulated and vacuum impregnated against moisture and shall be capable of withstanding a minimum of 10% over-current and 20% overvoltage.

The contactors and switches shall be mounted on panels of approved non-inflammable and nonhygroscopic insulating material supported on steel frame. All switches and contactors shall be of adequate rating of non-weldable wiping type. Heavy current relays shall be provided with arc deflectors.

1.7 ELECTRICAL WORK GENERAL

- (i) Power Supply to the lift machine Shaft is terminated on a 40 ampere 3 phase 2 Nos. circuit breaker. The contractor shall draw the power supply for the lift installation from this breaker. The supply shall include all required cables, fuses, electrical power panel, and other accessories. The installation shall be protected against over voltages and power surges by surge arrestors
- (ii) PVC insulated cables shall be 450/750 Volt grade, manufactured in accordance with BS 6004 or equivalent.
- (iii) All electrical wiring shall be run in galvanized steel conduit and/or trunking, all as specified below. Trunking shall be used wherever possible instead of multitude of conduits

1.8 CONDUITS

- (i) The conduits shall be of sufficiently large section and so arranged with draw-in boxes to allow either and easy drawing or out of the cables which must not exceed the number set out in the appropriate table of the IEE. Regulations for electrical installations and no conduit bearing rust or damage shall be used.
- (ii) Surface runs shall be fixed by means of galvanized distance saddles at intervals not exceeding 1200 mm.
- (iii) Conduits shall be mechanically and electrically continuous throughout.
- (iv) No conduit shall be less than 20mm outside diameter.
- (v) No cables shall be drawn into conduit before fixing and the conduit shall be cleaned and free from oil before erection.

1.9 CONDUIT-BOXES

- (i) Conduit boxes shall be fixed direct to the structure apart from the support provided by the conduits.
- (ii) Boxes lids where required shall be heavy gauge secured by means of screws.

(iii) Adaptable boxes and lids of the same size shall be interchangeable.

1.10 TRUNKING

(i) The outer case, lid and internal partitions, if appropriate, of the trunking shall be manufactured of galvanized sheet steel enameled finished in manufacturer's standard colour.

(ii) The lid of the trunking shall be formed with returned edges and shall be fixed to the cable trunking by means of screws located in bushes set in the edge trim of the trunking, or by other approved securing devices.

(iii) Lengths of trunking shall be coupled together by suitable means.

(iv) At each joint in the trunking, continuity shall be maintained by the installation of copper links by brass nuts, locking washers and bolts. In addition an earth continuity conductor copper shall be run within the trunking and used to bond all items of equipment.

(v) Before cables are drawn into trunking the Sub-contractor is to ensure that all sections of trunking are free from sharp edges, burrs and weld spots which could cause damage to cable insulation.

(vi) Where the trunking passes through floor slabs, fire barriers shall be fitted in the trunking.

(vii) All trunking required in the floor of the lift machine room shall be installed flush with the floor finish and be fitted with removable chequer plate lid.

(viii) Any damage to the paint work of the trunking shall be made good by the Contractor before cables are drawn in.

1.11 BONDING

(i) Supplementary bonding conductors shall be provided to connect together all exposed conductive parts and extraneous conductive parts of the lift installation in the well and machine room.

(ii) External conductive parts of the lift installation and exposed conductive parts of well lighting and power installation shall also be bonded.

1.12 TRAVELING CABLES

Traveling cables between car and lift well shall have flame retarding and moisture resisting outer cover. They shall be flexible and suitably anchored and suspended to relieve strains in the individual conductors.

1.13 SUSPENSION ROPES

- (i)The suspension ropes shall be from a specialized rope manufacturer and specially manufactured for elevators, each capable of sustaining the weight of the laden car with safety.
- (ii)The manufacturer's test certificate for the ropes shall be provided.

1.14 COUNTERWEIGHT

- (i)The counterweight shall be provided consisting of cast iron weights or steel plates contained in a structural steel frame with suitable guide shoes.
- (ii)After balancing the counterweights should be locked in position by bolts to avoid noise and
- (iii)A rigid metal screen shall be provided around the counterweight at its lower end of travel.

1.15 SHEAVES AND SUPPORTING BEAMS

Deflector and overhead sheaves shall be provided where necessary to obtain the proper lead of the ropes to the car and counterweight, together with supporting beams for the same.

1.16 HAND GEAR

- (i)Provision shall be made for moving the car to a floor level by hand in the event of the lift stalling between floors. Hand winding equipment shall be painted yellow.
- (ii)The brake-lifting device shall be so arranged that it is impossible for the brake to be left in the fitted position.
- (iii) The direction of winding corresponding to the raising and lowering of the lift car shall be clearly indicated.
- (iv) A prominent notice shall be displayed stating that hand winding shall be undertaken only by authorized persons and the notice shall detail the step-by-step procedures to be taken to move the lift in an emergency.
- (v)If special tools are required they shall be retained in a suitable wall mounted fixture.

1.17 SAFETY GEAR AND GOVERNOR

- (i)The safety gear to BS 5655 shall be mounted on the car frame and shall be operated by a centrifugal over speed governor located over the lift well. The safety device shall be arranged to bring the car to a stop and hold it on the guide rails in the event of excessive descending speed and provision shall be made automatically to shut off the power supply to the motor and apply the brake.

- (ii) Provision shall be made for easy release and resetting of the safety gear after it has been operated.
- (iii) Governor ropes shall be of steel not less than 8 mm in diameter.
- (iv) For elevator speeds of 1 mps and above, gradual safety should be used. For 0.75 mps and below, instantaneous safety can be used.

1.18 BUFFERS

- (i) Buffers to BS 5655 shall be provided.
- (ii) Where buffers are installed in the pit they shall be mounted on continuous channels or other structural member fastened to the guide rails.
- (iv) Spring buffers should be used for speed up to 1 mps for speed above 1 mps; spring return type oil buffers should be used.

1.19 COMPENSATION ROPES

Where required by BS 5655, compensating ropes shall be provided between the car and counterweight, passing round a pulley in the pit. The ropes shall be tensioned by gravity and a safety switch shall be provided.

1.20 GUIDES AND FIXINGS

Guides for car and counterweight shall consist of steel "tee" section machined rails or formed rails erected plumb and securely fastened to the lift well by heavy steel brackets to suit the lift well already constructed. The ends of guides shall be tongued and grooved or forming matched joints and shall be connected with steel fish plates and bolts necessary for fixing the guide rails to the building structure.

1.21 GUIDE RAIL LUBRICATION & GUIDE SHOES

- (i) Self-lubricating type of guide shoe shall be provided for the car and counterweight.
- (ii) Guide shoes shall be provided with replaceable nylon liners to absorb the shocks and to give good riding comfort.
- (iii) Where wicks lubrication is used, a drip pan shall be provided below the guides in the pit to catch surplus oil.

1.22 CAR FRAMES

The car frame shall be constructed of steel members reinforced and braced to relieve the car enclosure of undue strains in the event of the operation of the safety gear or by the lift being arrested in its travel by impact with the buffers.

(ii) Adjustable guide slippers shall be fixed on the top and bottom of the frame.

(iii) The steel suspension ropes shall be attached to the car frame with provision for taking up any inequalities between the ropes. Rope should be connected to thimble rod by babbitt metal moulding and springs should be fixed between thimble rod and car frame to avoid transmission of vibrations to the car.

1.23 CAR PLATFORM

An adequate floor of steel construction shall be provided. The floor covering will be provided as part of this sub-contract and secured to the flooring. The platform shall be equipped with a sill of finish as indicated in schedule of requirements.

1.24 CAR ENCLOSURE

The design shall in general conform to the following requirements.

(i) The car shall be of metal construction, with the walls and doors, car fittings in a finish indicated in schedule of requirements attached herewith.

ii) The car shall include a fitted stainless steel finished handrails on rear wall.

(iii) The panel housing, the car operating micro touch buttons and other car controls together with the cabinet for housing the telephone/intercom inside the car shall all be finished in stainless steel. Micro touch buttons should not have mechanical displacement of more than 0.5 mm.

(iv) Lighting shall be provided by means of fluorescent lamps concealed above a dropped ceiling. Power supply for the lighting circuit shall be taken from the lift machine room.

(v) Mechanical means of ventilation shall be provided in the design of the car enclosure consistent with the designated occupancy of the lifts.

(vi) The roof of the car shall be sufficiently reinforced to withstand the distributed weight of two men.

(vii) Each car shall be fitted with emergency hatchway on the roof for emergency purposes. It shall have a minimum size of 450mm x 500mm and open outwards.

(viii) Toe guard to be provided for full entrance opening width.

1.25 LANDING DOORS AND ENTRANCES

The Contractor shall furnish and install at all landing openings, complete metal entrances consisting of frames, architraves, doors, sills and fascia plates, in accordance with the following

1.26 ARCHITRAVES

The frames shall consist of head and jamb sections with integral trim.(Wide Jamb) On the well side the frames shall be carried back far enough to present a neat appearance, and shall be secured to the sill and door hanger supports, or structure. The architraves on all floors should cover full thickness of entrance wall. Finish should be as indicated in schedule of requirements.

1.27 SILLS

The sills shall be of finish as indicated in schedule of requirement with approved non-slip wearing surface. They shall be in one piece of sufficient length to suit the two supporting struts and grooved for the door guides. The door tracks shall be self-clearing.

1.28 LANDING DOORS

Doors shall be of the type specified in the schedules. The door panels shall be formed to match the unit frames. The bottom of the doors shall be provided with guides to run in the sill slots with minimum clearance. Door hanger rollers to have notymetallic contact with the header track for smooth door operation. The doors shall have a minimum fire rating of 1 hour.

1.29 TOE GUARDS

All landing entrances to be provided with ' t Toe Guards" for the full width of the entrance opening.

1.30 CAR DOORS

(i) The entrances shall be protected by horizontal sliding metal doors with finish as indicated in schedule of requirements. The opening arrangements are detailed in the schedule of requirements. Panel rigidity shall be obtained by suitable steel reinforcement. The doors shall have a minimum fire rating of 1 hour.

The doors shall be hung on sheave hangers running on a polished steel track and guided at the bottom by non-metal shoes sliding in a smooth threshold groove. Door hanger sheave to have non-metallic contact with the track for smooth and noiseless door operation.

(ii) Suitable means shall be used to transmit motion from one door panel to the other.

1.31 CAR AND LANDING DOOR MECHANISM

(i) An automatic door operating mechanism shall be provided to open and close the car and landing doors when the car is at a landing. The car door and landing door at any landing shall be opened and closed simultaneously. They shall be power opened and closed. Door movements shall be cushioned or checked at both limits of travel.

- (ii) The doors shall be automatically opened when the car is level at the respective landing and shall again close after a pre-determined time interval has lapsed. A 'door open' button shall be provided in the car the momentary pressure on which shall reverse the motion, reopen the doors and reset the time interval.
- (iii) The car door shall be provided with a protective device extending the full height and projecting beyond the front edge of the door. This device shall be so arranged that should it touch a person or any obstruction in its path while the door is closing, it shall automatically cause both the car door and the landing door to return to the open position. The doors shall remain open until the expiration of a time interval and then close automatically. The pressing of a car button, once the doors are fully open shall cause the doors to close immediately.
- (iv) Mechanical safety edges shall be retractable. In centre opening doors, both doors shall have safety shoes.
- (v) The device is to be arranged so as to ensure the doors exerting the absolute minimum force on a person obstructing the closing operation.
- (vi) In addition, photoelectric detector type of door safety device shall be provided. So that there is no need to continue to press the door opening button while boarding or alighting.

1.32 CAR AND LANDING DOOR INTERLOCKS

- (i) Each landing door and the car door gate shall be equipped with an electro-mechanical interlock, which shall prevent the operation of the lift unless the doors are closed and positively locked. The interlock shall also prevent the opening of any door until the car has reached the respective landing zone with the operating circuits open.
- (ii) Emergency opening of the door and gates from the landings shall be possible by means of key operation. Two keys shall be provided.

1.33 EMERGENCY BACK-UP SYSTEM

In the event of a microprocessor malfunction, another discrete circuit is energized to maintain the functioning of the system and assure operational safety.

1.34 LANDING AND CAR CONTROLS

The lift shall be controlled from micro buttons in the car, numbered to correspond to the landing served, and by two buttons on the landing.

The operating device shall give the person in the car uninterrupted use of the lift until the car door has reached the desired landing, and the car has been opened and again closed. Momentary pressure of a landing button shall bring the car to that landing.

After the car stops at a landing response to a landing call, a time delay shall render the car inoperative from the landing buttons for a pre-determined interval.

1.35 TOP OF CAR INSPECTION CONTROLS

(i) Inspection controls shall be fitted to all passenger-carrying lifts in accordance with BS codes.

(ii) A 13 Ampere 3 Pin switched socket outlet and a permanent light of the protected bulkhead or wall glass type with controlling switch, shall also be provided on top of the car. The supply for this socket outlet and lamp shall be independent of the lift machine supply.

1.36 EMERGENCY OPENING

(i) Lift car shall be provided with emergency opening in the roof for emergency purposes.

(ii) Panels for emergency openings shall:

- * Not open inwards;
- * Be clear of any apparatus mounted above the roof of lift car;
- * Be held by suitable fasteners, which can be opened only from outside the lift car i.e. without key.
- * Be provided with a switch, which will prevent operation of the lift when the panel is open, and which will restore operation of the lift only when the fastenings have been manually restored.

1.37 TERMINAL STOPPING DEVICES

Each lift shall be fitted with upper and lower normal stopping devices and upper and lower final stopping devices each of which shall independently be capable of stopping the car through its own switch. If the lift has passed a final limit switch it shall not be possible to clear the circuit until the lift has been moved back by hand into its normal running position.

1.38 CONTROL SWITCH IN LIFT PIT

A switch shall be provided in the pit for each lift in accordance with BS 5655 which, when placed in the "STOP" position, will cause the lift to stop and prevent its being started until placed in the "RUN" position.

1.39 ALARM BELL

A push button shall be fitted on the control panel in car arranged to ring a battery-operated bell situated near the entrance to the lift on the ground floors, the precise position to be agreed on site. Bell, trickle charger, lead acid (planet type) battery and all interconnecting wiring shall be supplied and installed as part of this contract.

1.40 EMERGENCY LIGHTING

Passenger carrying car shall be provided with an emergency light, which will operate for not less than three hours duration on mains failure. The battery to be rechargeable type.

The light shall consist of a self-contained unit with its own batteries and a small fluorescent tube.

1.41 INDICATOR

All indicators will be fitted with neon lamps instead of filament type bulbs to enhance the life and sharpness of the indicator.

1.42 CAR LOAD WEIGHING DEVICE, AUTOMATIC BY-PASS

- (i) The lift car shall be fitted with a car-weighing device to render the lift inoperative should the contract load be exceeded. Visual and audible indication that the car is overloaded shall be fitted within the car. When the overload has been removed, the lift shall resume normal operation.
- (ii) In the event of the car being loaded to its full capacity, than it will not stop to answer any hall calls and will stop only at the registered car hall. This will continue until such time the loading is reduced from its full capacity. This operation shall be in both directions of travel.

I .43 INTERPHONE SYSTEM

An intercommunication system between the car, ground floor lift entrance and the respective machine room shall be provided in the lift.

The station within the lift car shall be mounted above the car-operating panel having a perforated speaker grille. Pressing the interphone alarm push button in the car-operating panel shall cause the buzzer to operate and initiate an audible and illuminated signal in the Machine.

In the event of a failure of the normal electrical supply, the intercom system shall be automatically switched onto an emergency battery supply system provided with an automatic battery charger capable of fully recharging a discharged battery within 72 hours.

The entire installation and wiring of this shall be carried out by the lift sub-contractor.

1.44 ARRIVAL GONG

Arrival Gong, which strikes, indicating arrival of the cabin at a particular floor. Also Voice announcement whether lift going up or down, arrival floor names & emergency operation etc.

1.45 PAINTING

- (i) All iron except where finished bright or plated shall be thoroughly cleaned of all scale and rust and painted two coats of oil resistant paint at maker's works. On completion of the work on site the paintwork shall be touched up to make good any damage sustained during installation. All bright and plated parts should be

greased or otherwise protected against corrosion and discolouring during erection.

- (ii) Cellulose and other special finishes shall be protected so that they are handed over in perfect conditions.

1.46 VIBRATION

All lift gear including traction motor and controllers shall be as silent in operation as possible and in addition are to be effectively insulated from the structure so that in the opinion of the Engineer no noise or vibration is transmitted to other parts of the building.

1.47 TESTING AND COMMISSIONING

- (i) When the lift is completely installed it shall be subject to the complete range of tests to demonstrate to the Engineer the following:
 - (a) Insulation test, earth continuity and impedance test.
 - (b) That the lift operates at specified speed at loads varying between no load and 110% load.
 - (c) That the brake sustains the car with 125% contract load.
 - (d) Satisfactory operation of the safety gear and over-speed governor under over-speed conditions (drop test).
 - (e) That the various safety devices, locks and other safety provisions operate as intended.
 - (f) That the operation of the lift and doors in response to the car switches and push buttons is as intended.
 - (g) That the levelling is correctly adjusted for each floor and remains so after extended use.
 - (h) The car shall be loaded to the full specified load and the lift run from top to bottom continuously, for the full travel of the lift, allowing the normal time interval at each terminal, during which the doors are to be opened and closed. The test shall be continued for 2 hour during which the motor, motor generator and gearbox shall be assumed to have attained their maximum operating temperatures.
 - (i) Any other test specified in BS 5655 - Part 1 (Specification for testing and inspection of electric and hydraulic lifts).
 - (j) All instruments required for the tests shall be provided by the Contractor.

1.48 SERVICING AND MAINTENANCE ON PROVISIONAL ACCEPTANCE

- (a) After provisional acceptance, when the lift is put into service, the Contractor shall maintain lifts as necessary, for a period of twelve months.
- (b) All necessary stores, spares, tools and other material required for such work shall be provided by the Contractor.
- (c) An efficient local breakdown call-out organization whereby the services of an engineer can be obtained immediately at any hour of the day or night will be deemed to fulfill the above requirements.

All equipment's and installations provided under the Contract shall be continuously maintained free of charge by the Contractor throughout the whole maintenance period of twelve months including routine service and maintenance, periodic checking, inspection, adjustment etc., as deemed necessary to guarantee smooth and uninterrupted service.

The Contractor shall replace or repair with utmost speed and at his own expense any point of the plant or equipment or material or work performed or furnished under lifts works in the contract which may prove defective in design, installation and erection, operation, performance workmanship or from any act of omission of the Contractor that may develop, under the conditions provided by the contract and under proper use in the works or any section thereof during the maintenance period after the work.

The Contractor shall obtain and submit to the Engineer any guarantee or certificates of warranty available from the manufacturers but only as supplementary to the Contractor's own guarantees and in no way invalidating them.

1.49 INSTRUCTIONS TO EMPLOYERS STAFF

The Contractor shall, at times agreed with the Engineer, instruct the Employer's staff in the correct use, operation and routine maintenance of the works and shall satisfy himself and the Engineer that the staff are competent to take over and operate the Works.

1.50 HANDING OVER DOCUMENTS

The final handing over documents to be submitted by the Contractor on completion of the installation shall comprise the following.

- (a) Operation and Maintenance Manual (03 copies)
- (b) Testing and commissioning sheets (03 copies)
- (c) As Built Drawings (03 copies)

These documents should be supplied to the Engineer within 30 days on the issue of taking over certificate.

DETAILED TECHNICAL SPECIFICATION FOR LIFTS INSTALLATION

2.0 SCOPE OF WORK

This section specifies detailed requirements for design, manufacture, transport, delivery to site, unloading, complete erection, site testing, setting to work and maintenance for a period of 1 year of 01 Nos. 1000 kg, 60 m/min Passenger lift to be installed at Proposed 3storied Library building at University of vavuniya.

2.1 DRAWINGS AND SPECIFICATIONS

The Contractor shall furnish with his tender drawings the general arrangement of Lift equipment, depth of pit, overhead height, minimum required dimensions of hoistway and machine room and necessary specification. A set of detailed drawings must be submitted for approval as soon as possible after the order is placed showing detailed general arrangements, wiring details, and holes to be provided in walls and floors. It will be necessary for these to be supplied at the earliest for allowing time for building work to be arranged. All the drawings must be approved by the Engineer before the work commences.

2.2 RADIO INTERFERENCE SUPPRESSION

The lift equipment shall be fitted with radio interference suppression components during manufacture to ensure that the limits of interference comply with BS 800. All components and filter units used for interferences suppression shall comply with BS 613.

2.3 POWER SUPPLY

The power supply for the apparatus will be 400 Volts AC, 50 cycles, 3-phase 4 wire with neutral earthed at the supply source. The main beams, runaways and the steel structure should be connected to the main earthing system.

2.4 ELECTRICAL INSTALLATION

The electrical installation for the Lift including all trunkings in the shaft and machine room shall be executed by the Contractor. In the machine room a switchboard with 3-phase supply will be provided. He should also supply and install any other switchboards or panels required for a complete installation.

2.5 FIREMAN'S EMERGENCY SERVICE

Fireman's switch shall be provided and located in the ground floor close to entrance of the lift and when activated during an emergency the lifts should come to the ground floor and doors shall immediately open. Thereafter it shall be suitable for operation by fireman. Further provision shall be made in the lift control system to receive signals from

the fire detection system and activate lifts to travel automatically to ground floor and doors shall be immediately opened in a fire situation.

2.6 MAINTENANCE CONTRACT

Together with his Bid the Bidder shall submit a draft contract for complete maintenance, regular inspections of the installations and equipment after the expiry of the Defect Liability Period. Details shall be given for a comprehensive scheme inclusive of all replacement spares. Charges shall be given for a period of 5 years after the Defects Liability Period.

2.7 LOCATION OF LIFT

The Lift shall be installed at the position shown on the drawing and details of which could be referred to in the schedules.

2.8 SCHEDULE OF REQUIREMENTS FOR PASSENGER LIFTS

Passenger Lifts 01 & 02

| | | |
|--|-----------------------|---|
| No. of lifts | - | one |
| Capacity (Minimum) | - | 1000 kg |
| Speed (Minimum) | - | 60 m/min |
| Automatic Re-levelling Accuracy- | - | +/-5 mm |
| Drive Unit. | - | AC Variable Voltage Variable Frequency control |
| Stops & Openings | Service floor names - | 03 Stops, 03 Openings (all in the same line) Ground First, and second floors |
| Over Head | - | 6,500 mm (Uh) Vertical distance between finished floor of the highest landing and soffit of the lift shaft. |
| Pit Depth | - | 1,500 mm |
| Hoist way Size constructed | - | 2,700 mm (W) x 2,425 mm (D) |
| Entrance (wall to wall structural opening) | - | 1200 mm (W) x 2250 mm (H) |
| Machine Room - | | Machine room less Type |

(i) Elevator Car

Car Ceiling, Lighting & Ventilation - Shall be of baked enamel painted steel sheet with bright lighting through down lights (spot lights) and ventilation by electric blower through slip vents located at the centre of the car.

Car Walls - **Stainless steel hairline finished.**

Car Door - **Stainless steel hairline finished.**

Car Sill: Extruded hard aluminium

Car Floor: - Hard wearing Vinyl flooring with stainless steel toe guard along three sides of cabin.

Hand - rails: Stainless steel (not less than 75mmx6mm) on rear lift car wall

Mirror - : Mirror of size 1,200 mm x 900 mm with stainless steel frame

(ii) Landings

Landing Entrances: - Lintel & full width tapered stainless steel finish.

Hoistway Doors at all floors (Clear entrance) - 900 mm (W) x 2,100 mm (H) 2 panel center opening automatic doors in stainless steel hairline finish.

Landing sills at all entrances: Extruded hard aluminium

Entrance Indications

Typical floor Landing : Vertical combined unit comprising Digital car position indicator, direction indicators, and micro touch type hall call buttons which will illuminate on registration of call shall be installed at every floor landing served by the lifts. **All metal exposed parts of the indicators unit shall be made of stainless steel with matt finish.**

(iii) Car-Operating Panels

Signals in the Cabin: The following features shall be incorporated in the car operating panel located at one side of the entrance.

- . Emergency stop switch with alarm
- . Up/Down travel direction indicators
- . Digital floor position indicator
- . Floor buttons of micro touch type with lights, for registration of commands . Door open and door close button
- . Interphone

The following switches shall be fixed inside a lockable compartment provided below the panel.

- . Car light switch and Ventilator switch fan
- . Lift 'OFF' switch
- . Attendant operation switch

Car operating panel mounted in front corner of the cabin at 45 degree diagonally for better operational convenience with call buttons of micro touch type, which will illuminate on registration of a call.

Floor position indicator shall be installed on the top corner of the front panel of the car, which also should indicate up/down direction.

(iv) Special Features

- Safety door edge running full height of car
- Photoelectric-sensing device mounted above the car entrance to monitor movement of passengers/objects across the door and to control opening and closing of door. .
- DC Alarm bell

- Arrival gong
 - Floor arrival announcement (English)
 - Emergency car light. (This may be passed by a rechargeable battery, which could serve the Alarms too)
 - Interphone
 - Overload protective device with audible plus visible indicators
 - Emergency over ride switch
 - Parking Switch at Ground Floor hall call button panel.
 - All required limit switches and interlocks as specified in BS 5655 or equivalent recognized standards
- (v) Operation during power Failure : The lifts shall be equipped with a rechargeable battery bank for emergency operation of the lifts during power failure. In the case of power failure, car emergency light shall come on automatically and rescue system shall slowly guide the elevator to the nearest floor and then open both car door and respective landing door automatically, to prevent passengers being locked in the car. When power is restored, the elevator shall resume its normal operation.
- (vi) Emergency Provisions: An emergency exit comply with BS 5655 Part 1 shall be provided on the car ceiling. These exits shall incorporate the following features.
- . Be secured by suitable fasteners for hand use, which can be released only from outside the car.
 - . The hinged or removable emergency panel shall open outwards of the elevator car.
 - . The emergency opening shall be clear and no equipment on the elevator car top shall obstruct this opening.
 - . With the emergency exit opened, it shall not be possible to operate the lift.
- Next Landing Device . If the hoist way doors become jammed by a pebble, debris, etc., preventing opening of the doors, passengers will not be able to alight from the car. In order that the passengers do not get stranded at the affected floor, the elevator shall proceed to next immediate floor and the doors shall open out automatically.
- Low speed automatic Rescue operation . In the unlikely event that the elevator should stop between floors, the cause of the malfunction shall be checked out automatically and when the safety has been confirmed, the elevator will proceed at low speed to the ground, so that the passengers can alight from the car.
- Multiprocessor

| | |
|-----------------|--|
| Backup System | • This system shall assure complete functional backing between the group controller and individual car controllers as well as between microprocessor components in the controller. Thus safe elevator functioning is assured even if localized malfunctions occur. |
| Buffers | . Spring type/Hydraulic |
| Safety | . Gradual type |
| Guide rails | . As per specification |
| Counterweights | . Cast-iron blocks enclosed in a steel frame |
| Power supply | . 400 Volts 3 Phase 50 f-lz |
| Lighting supply | • 230 Volts 1 Phase 50 Hz |
| Parking Switch | . Parking switch shall be installed in the Level-I. On activation it shall bring down the lift to Level-I, evacuate passengers, and close the door, switch of the car lights and ventilation fan. |

(vii) Civil work

The construction of the building is in progress. The drilling of suitable holes on the floor slab for traction ropes, governor ropes etc. has to be carried out by the lift contractor.

viii) Provisions for Disable personnel

- Lift door closing mechanisms shall be adjustable to give adequate entry time for personnel with disabilities. The installation of photoelectric sensors shall be provided for controlling the closing of the lift doors.
- All call buttons shall have Braille raised numbers and symbols to indicate "Open" and "Close".
- A visual lift position indicator shall be provided above the control panel or over the door.
- A voice indicator shall be installed to announce whether lift going up or down, arrival floor names & emergency operation etc,
- Minimum Car interior size shall be not less than 1400 mm (width) x 1400 mm (depth).

(ix) Energy Efficiency Features for Sustainability

As per the high sustainable consideration of the building it shall include some energy efficiency features for the lift. The Control System shall be VVVF or equivalent technology for saving the starting current & electrical fluctuations.

Regenerative Drive

The lift shall be incorporated with the Regenerative drive mechanism as energy saving (Equivalent Technology also acceptable) feature. Through this technology the potential energy will transfer to green electrical power which could be sent to internal grid. The supplier should me highly concern of this energy efficiency features & shall be clearly mentioned at the specifications.

TECHNICAL SCHEDULE

| | | As specified | Complied or not | Remarks |
|-----|------------------------------|---------------------------------|-----------------|---------|
| 1 | Passenger Lift | | | |
| 1.1 | Make | | | |
| 1.2 | Country of manufacture | | | |
| 1.3 | Rated capacity of lift | 1000 kg (13 passengers) | | |
| 1.4 | Rated speed | 60 m/min | | |
| 1.5 | Control system | VVVF | | |
| | Protection against | | | |
| | Under voltage | | | |
| | Phase | | | |
| | Overload | | | |
| | Earth fault | | | |
| 1.6 | Drive motor | | | |
| | - Rated supply voltage | 400 v/3ph | | |
| | Frequency | 50 1-Iz | | |
| | - Permissible supply | | | |
| | - Voltage variation | | | |
| | Rated capacity | | | |
| | Speed | | | |
| | Ventilation/cooling | Forced ventilation | | |
| | Insulation class | Class F | | |
| | Full load current | | | |
| | Continuous duty cycle rating | 180 | | |
| 1.7 | Governor system | | | |
| 1.8 | Type of safety gear | | | |
| 1.9 | i) Hoistway size | 2700 mm (W) x 2425 mm (D) | | |

| | | | | |
|------|--|------------------------|--|--|
| | ii) Machine room size (with door dimensions) | Ref. Drawings | | |
| 1.10 | Overhead of lift | 6,500 mm | | |
| 1.11 | Pit depth | 1,500 mm | | |
| 1.12 | Position of machine room | Machine Room Less Type | | |

| | | As specified | Complied or not | Remarks |
|------|------------------------------------|--------------------------------------|-----------------|---------|
| 1.14 | Hoisting Hook in the TOP Slab | | | |
| | No. of Hook | 3 | | |
| | - Capacity of the hook | 2 Tons | | |
| 1.15 | Lift Car | Cl 1.24 & 2.80) | | |
| | Design | | | |
| | - Internal dimensions | Min 1400 mm (width) x 1400 mm (depth | | |
| | Car door type | 2 panel Centre Opening | | |
| | Door opening dimensions | 900mmx 2100mm | | |
| | - Details of car | | | |
| | Ceiling, lightings | | | |
| | - Ventilation | | | |
| | Interphone | | | |
| | - Walls | Hairline SS | | |
| | - Doors | Hairline SS | | |
| | - Car sill | Extruded hard aluminium | | |
| | - Car floor finishes | Hard wearing Vinyl flooring | | |
| | Operating panel finish | Hairline SS | | |
| | - Function & features of operating | | | |
| | - Landing | | | |
| 1.16 | Door type | Cl 1.28 & 2.8(ii) | | |

| | | | | |
|------|---|----------------------------------|--|--|
| | - Door construction | 2 panel Centre Opening | | |
| | - Door dimension | 900mm x 2100 mm | | |
| | -Door Finish | stainless steel hairline finish | | |
| | - Opening & closing features of door | | | |
| | - Architrave finish | Wide Jamb | | |
| | - finish of push button panel | stainless steel with matt finish | | |
| | - Functions and features of push button panel | | | |
| | - Landing sill type | | | |
| 1.17 | Levelling accuracy | +/- 5mm | | |

| | | As specified | Complied or not | Remarks |
|------|----------------------------------|-----------------------|-----------------|---------|
| 1.18 | Buffer type | Spring type/Hydraulic | | |
| 1.19 | Safety gear details | | | |
| 1.20 | Counter weight details | | | |
| 2.21 | Sizes, number and test loads of | | | |
| 2.22 | Details of electrical protection | | | |
| 2.23 | Governor | | | |
| 1.24 | Emergency Rescue Device (Battery | CI 2.8 (v) | | |
| 1.25 | Battery Bank | CI 2.8 (v) | | |
| | Type | | | |
| | Capacity | | | |
| | Amp/hrs | | | |
| | Voltage | | | |
| 1.26 | Battery Charger | CI 2.8 (v) | | |
| | Type | | | |
| | Capacity | | | |
| | Amp/hrs | | | |

| | | | | |
|------|--|--|--|--|
| | Voltage | | | |
| 1.27 | Parking Switch | | | |
| 1.28 | Special features (if any) | | | |
| | Arrival gong | | | |
| | Floor arrival announcement (English) | | | |
| | Next Landing Facility | | | |
| | Low Speed Automatic Rescue Operation | | | |
| | Lift door closing mechanisms shall be adjustable to give adequate entry time for personnel with disabilities | | | |
| | Braille raised numbers and symbols to indicate "Open" and "Close" buttons | | | |

| | | As specified | Compl ied or not | Remarks |
|------|--|--------------------------------------|------------------------|---------|
| 1.29 | Provisions for Disable personnel | | | |
| | Lift door closing mechanisms shall be adjustable to give adequate entry time for personnel with disabilities. The installation of photoelectric sensors shall be provided for controlling the closing of the lift doors. | Required | | |
| | [?] All call buttons shall have Braille raised numbers and symbols to indicate "Open" and "Close". | Required | | |
| | A visual lift position indicator shall be provided above the control panel or over the door | Required | | |
| | [?] A voice indicator shall be installed to announce whether lift going up or down, arrival floor names & emergency operation etc | Required | | |
| 2.00 | Energy Efficiency Features | Incooperated with Regenerative Drive | | |
| 3.00 | Warranty (Specify) | | | |

BILL OF QUANTITIES

| Item | Description | Unit | Qty | Rate | Amount |
|----------------|---|------|-----|----------|----------|
| | | | | Rs. Cts. | Rs. Cts. |
| | Prior to pricing the bidders are requested to study the technical specification of this item and familiarize with the full scope of work. | | | | |
| | Prices quoted shall be for the complete and fully functioning system. BOQ items are only for major equipment and the quoted price shall include for all the necessary items for the complete and fully functioning of the system. | | | | |
| | Allow for all cost of supply including CIF, CID, PAL, NBT, clearing charges, transport charges, erection, site testing, commissioning as per specification and drawings and profits etc. | | | | |
| 1 | Passenger Lift | | | | |
| | Supply & Installation of passenger lift (Machine Room Less Type) with disable facility of capacity 1000 kg (13 passengers), speed 60 m/min, 3 openings with landing doors 8 all accessories.(Including Cat Ladder for Pit) | | | | |
| 1.1 | Supply Cost | Nos. | 1 | | |
| 1.2 | Installation Cost | Nos. | 1 | | |
| 2 | Emergency battery banks with the charger to operate during power failure as specified. | | | | |
| 2.1 | Supply Cost | Nos. | 1 | | |
| 2.2 | Installation Cost | Nos. | 1 | | |
| 3 | Testing & commissioning | Item | 1 | | |
| Sub Total | | | | | |
| VAT | | | | | |
| Total with VAT | | | | | |

Total cost for lift installation (before VAT) in words Rupees

..... (Carried forward to Form of Bid)

VAT Registration No.....

Name & Address of Bidder.....

.....
Signature of Bidder

Section V

Quotation Submission Form

[The Vendor shall fill in this Form in accordance with the instructions indicated No alterations to its format shall be permitted and no substitutions will have accepted.]

Date:

To: University of Vavuniya.

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the document issued;
- (b) We offer to supply in conformity with the documents issued and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods
.....
[Insert a brief description of the Goods];
- (c) The total price of our quotation including any discounts offered is:
.....
.....[Insert the total quoted price in words and figure]
- (d) Our quotation shall be valid for the period of time specified in ITV Sub-Clause 8.1, from the date fixed for the quotation submission deadline in accordance with ITV Sub-Clause 11.1, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) We understand that this quotation, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us.
- (f) We understand that you are not bound to accept the lowest evaluated quotation or any other quotation that you may receive.

Signed:.....
[Insert signature of person whose name and capacity are shown]

Name:
[Insert complete name of person signing the Bid Submission Form]

Date:

Rubber Stamp

Price Schedule

| No | Description of Goods | 1 | 2 | 3 | 4 | 5 |
|----|--|--------------|------------|-----|-------------------------|----------------|
| | | Qty (Nos) | Unit Price | VAT | Price with VAT (2+3) | Total (1x4) |
| 01 | Supply, delivery, Installation, Testing, Commissioning and Maintenance of 1000kg Lift for Library. | 01 | | | | |
| | | | | | | |

VAT Registration Number if any

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rupees (Amount in Figures)
(Amount in words) within the period specified in the Invitation for Bids.

We also confirm that the warrantee/guarantee specified shall apply to the offered goods.

Company Name: Signature:.....

Name of the authorized person: Date:

Address:

.....

.....

Section VI
Standard Forms
Form of Performance Security
(Unconditional)

Issuing Agency: -----
----- [Issuing Agency's Name and Address of Issuing Branch
or Office]

Beneficiary: "The Chairman, Department of Procurement Committee"
University of Vavuniya.
Pambaimadu,
Vavuniya.

Date: -----

PERFORMANCE GUARANTEE No: -----

We have been informed that [Name of Contractor]
(Hereinafter called "the Contractor") has entered into Contract No. [Reference
number of the contract] dated..... with you, for the.....
..... [Name of the Contract] (Hereinafter called "the
Contract");

Furthermore, we understand that, according to the conditions of the Contract, a performance
guarantee is required.

At the request of the Contractor, we [Name of Agency]
hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of
..... [Amount in words] (.....) [amount in
figures], upon receipt by us of your first demand in writing accompanied by a written statement
stating that the Contractor is in breach of its obligation(s) under the Contract, without your
needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the day of 2020 [insert date, 30
days beyond the intended date of Completion] and any demand for payment under it must be
received by us at this office on or before that date.

.....

[Signature(s)]

Form of Bid Security

[This Guarantee form shall be filled in accordance with the instructions indicated in brackets]

Issuing Agency:

.. [insert issuing agency's name and address of Issuing branch or Office]

Beneficiary: "The Chairman, Department of Procurement Committee"

**University of Vavuniya,
Pambaimadu, Vavuniya.**

Date:.....*[insert (by issuing agency) date]*

BID GURANTEE No:.....*[insert (by issuing agency) number]*

We have been informed that *[Insert (by issuing agency) name of the Bidder]* (Hereinafter called "the Bidder") has submitted to you its bid dated..... *[Insert (by issuing agency) date]* (Hereinafter called "the Bid") for the execution of*[Insert name of Contract]*

Furthermore, we understand that, according to the conditions, Bids must be supported by a Bid Guarantee.

At the request of the Bidder, we *[Insert name of issuing agency]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[Insert amount in words]*(.....
.....) *[amount in figures]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- a) Has withdrawn its Bid during the period of bid validity specified; or
- b) does not accept the correction of errors in accordance with the Instructions to Bidders(hereinafter "the ITB"); or
- c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuse to furnish the Performance Security, in accordance with the ITB.

This guarantee will remain in force up to *(Insert date as at Invitation for Bid)*

Consequently, any demand for payment under this Guarantee must be received by us at the office on or before that date.

.....
[Signature(s) of authorized representative(s)]

Manufacturer's Authorization

[If requested under ITV clause 7.3, the Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated.]

Date:

WHEREAS

We [insert complete name of Manufacturer], who are official manufacturers of[insert type of goods manufactured], having factories at[insert full address of Manufacturer's factories], do hereby authorize[insert complete name of Bidder] to submit a quotation the purpose of which is to provide the following Goods, manufactured by us[insert name and or brief description of the Goods], and to subsequently negotiate and supply the goods.

We hereby extend our full guarantee and warranty, with respect to the Goods offered by the above firm.

Signed:

.....
[Insert signature(s) of authorized representative(s) of the Manufacturer]

Name:

.....
[Insert complete name(s) of authorized representative(s) of the Manufacturer]

Title:

.....
[Insert title]

Duly authorized to sign this Authorization on behalf of:

.....
[Insert complete name of Bidder]

Dated on _____ day of _____, _____ [insert date of signing]