SUPPLY, INSTALLATION,TESTING AND COMMISSIONING AND MAINTENANCE DURING THE DEFECT LIABILITY PERIOD OF VERTICAL TRANSPORTATION SYSTEM (LIFTS AND DISABLED PLATFORM) FOR AUDITORIUM OF GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY

MINUTES OF PRE BID MEETING

CONTRACT NO : KDU/PRO/RP&SERVICE/2704/2021

DATE : 23rd June 2021

TIME : 10.00 a.m

VENUE : General Sir John Kotelawala Defence University

ATTENDANCE

No.	Name	Organization	Status
1	Captain V.M. Senerviratne	KDU	Present
2	LCdr (E) R Y Dikkumbura	KDU	Present
3	LCdr (S) P A O H Peramunaarachchi	KDU	Present
4	Cdr D S Bogahawatte	KDU	Present
5	Major K.D.K. Jayamini	KDU	Present
6	Major H.G.L.U Gamage	KDU	Present
7	Dr. N.T. Sirisoma	KDU	Present
8	H.M.C.T. Herath	CECB	Present
9	W.H.M.N.C. Nanayakkara	CECB	Present
10	R.B. Prishma Dilrangi	Elevators (Pvt) Ltd	Present
11	Upul de Silva	Elevators (Pvt) Ltd	Present
12	I D Danushka Priyalal	Trade Promoters (Pvt) Ltd	Present
13	Nalin Jayalal	Trade Promoters (Pvt) Ltd	Present
14	G R P Silva	IEE Elevators Lanka (Pvt) Ltd	Present
15	K. A. Chandama	IEE Elevators Lanka (Pvt) Ltd	Present
16	D S P Jayakody	Hayleys Aventura	Present

Item	Matters discussed
1	Captain V.M. Senevirathne chaired the meeting and welcome the participants.
2	Eng. W.H.M.A.C. Nanayakkara briefed the scope of the works.
3	Followings were clarified by Eng. H.M.C.T. Herath.
	• All the bidders are to be strictly adhere with the requirements mentioned under sub clause 4.3 of Bidding Data and all the requested information are to be provided and lack of those documents will be considered as a major deviation and can cause for rejection of the bids. • The final date of accepting Bidder's quarries is 30th June 2021, until 4.00 p.m. Quarries made by the bidders after shall not be considered.

	Quarry	Clarification	Remarks
i.	The Bidders had a quarry regarding wiring of the Fire Fighter's Lift.	It is informed that, there is no Fire Fighter's lift in the building.	

		The followings were amended accordingly. Section - VI, Specifications, (Page, VI-11), Cl. 2.7 Electrical Work, Item (iv) Deleted.	Page VI-11 amended and attached
ii	Bidders were quarried about the shaft size and the opening size of the service lift. Accordingly, they mentioned that, it is unable to provide centre opening of 1200 mm as exiting	Section VI – Specifications, Cl 3.2 Schedule of Requirements – Service Lift (Machine Room Less) 16th Item **"2-Panel Center Opening"** Deleted and Replaced by **"2-Panel Center or Side Opening"**.	Page VI-24 amended and attached
		Item Description of BOQ item L/5 & L/6, Section - VII, Bill of Quantities and Schedules **"Door Type – Two Panel Center Opening"** Deleted and Replaced by **"Door Type – Two Panel Center or Side Opening"**	Page VII-08 amended and attached
		Section - VII, Bill of Quantities and Schedules, (Page, VII-22), Item 3.20: Lift Car, 3rd Raw **"Car door type: 2- Panel center opening"** Deleted and Replaced by **"Car door type: 2- Panel side opening"**	Page VII-22 amended and attached
		Section - VII, Bill of Quantities and Schedules, (Page, VII-24), Item 3.21: Landing, 2nd Raw **"Door type: 2- Panel center opening"** Deleted and Replaced by **"Door type: 2- Panel side opening**	Page VII-24 amended and attached
iii.	Employer informed that, they can supply the necessary scaffoldings, and the erection shall be carried out by the selected bidder.	Section - VII, Bill of Quantities and Schedules, (Page, VII-3), Note 1, 3rd Item **"Allow for the cost of all temporary works such as scaffolding etc."** Deleted and Replaced by **"Allow for the**	Page VII-03 amended and attached

		cost of all temporary works such as fixing of scaffolding (scaffolding will be supplied by the Civil Contractor) etc."	
iv.	With respect to the Capacity of the Disabled Flat form, Bidders informed that the available capacity is 250 kg.	Section - VI, Specifications, (Page, VI-31), Cl. 4.7 Schedule of Requirements for Disabled platform,2nd Item, **"Capacity – 350 kg (minimum)"** Deleted and Replaced by **"Capacity – 250 kg (minimum)".**	Page VI-31 amended and attached
		Item Description of BOQ item DP/1 & DP/2, Section - VII, Bill of Quantities and Schedules **"Capacity – Min. 350 kg"** Deleted and Replaced by **"Capacity – Min. 250 kg"**	Page VII-09 amended and attached
		Section - VII, Bill of Quantities and Schedules, Item 4.5, **"Rated Capacity of Platform: 350 kg"** Deleted and Replaced by **"Rated Capacity of Platform: 250 kg"**	Page VII-26 amended and attached
v.	Bidders were quarried about placing hooks in positions.	It is informed that the selected bidder had to supply required hooks and they shall be placed as per the supplier's requirements. The Supplier has to Coordinate with the civil Contractor on this regard.	Information
vi.	Bidders were quarried about the scope of electrical works related to the lift installation.	It was informed that, isolators will be provided at the top most landing. Lift supplier should attend and complete the electrical works from that point onwards.	Information

Prepared By: H.M.C.T. Herath on 02nd July 2021

Copies to be circulated to all participants and Bidders those who have collected the Bidding Documents.

Confirmation of the pre-bid meeting minutes

Director (Logistics)

General Sir John Kotclawala Defence University

I/we hereby certify that clarifications of the pre-bid meeting minutes given above have been duly read and incorporated into my/our bid.

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Authorized Signature of the Bidder Date:.....

Supply, Installation, Testing & Commissioning and Maintenance During the Defect Liability Period of Vertical Transportation System (Lifts & Disabled Platform) for Auditorium of General Sir John Kotelawala Defence University, At Ratmalana (KDU/PRO/RP& SERVICE/(AUD)/2704/2021).

Addendum No. 1

(Issued in terms of **Clause 10.0** – Instructions to Bidders of the Bidding Document)

1. Section - VI, Specifications, (Page, VI-11), Cl. 2.7 Electrical Work, Item (iv)
   Deleted.
   (Refer Page VI-11 amended)

2. Section - VI, Specifications, (Page, VI-24), Cl. 3.2 Schedule of Requirements – Service Lift (Machine Room Less), 16th item.
   "2-Panel Center Opening" Deleted and Replaced by **"2-Panel Center or Side Opening".**
   (Refer Page VI-24 amended)

3. Section - VI, Specifications, (Page, VI-31), Cl. 4.7 Schedule of Requirements for Disabled Platform, 2nd item.
   "Capacity – 350 kg (minimum)" Deleted and Replaced by **"Capacity – 250 kg (minimum)".**
   (Refer Page VI-31 amended)

4. Section - VII, Bill of Quantities and Schedules, (Page, VII-3), Note 1, 3rd Item, 1st Sentence.
   "Allow for the cost of all temporary works such as scaffolding etc." Deleted and Replaced by **"Allow for the cost of all temporary works such as fixing of scaffolding (scaffolding will be supplied by the Civil Contractor) etc."**
   (Refer Page VII-03 amended)

5. Item Description of BOQ item L/5 & L/6, Section - VII, Bill of Quantities and Schedules, (Page, VII-8).
   "Door Type – Two Panel Center Opening" Deleted and Replaced by **"Door Type – Two Panel Center or Side Opening"**
   (Refer Page VII-08 amended)

6. Item Description of BOQ item DP/1 & DP/2, Section - VII, Bill of Quantities and Schedules, (Page, VII-9).
   "Capacity – Min. 350 kg" Deleted and Replaced by **"Capacity – Min. 250 kg"**
   (Refer Page VII-09 amended)

7. Section - VII, Bill of Quantities and Schedules, (Page, VII-22), Item 3.20: Lift Car, 3rd Raw.
"Car door type: 2- Panel center opening" Deleted and Replaced by **"Car door type: 2- Panel side opening"**
(Refer Page VII-22 amended)

8. Section - VII, Bill of Quantities and Schedules, (Page, VII-24), Item 3.21: Landing, 2nd Raw.
"Door type: 2- Panel center opening" Deleted and Replaced by **"Door type: 2- Panel side opening""**
(Refer Page VII-24 amended)

9. Section - VII, Bill of Quantities and Schedules, (Page, VII-26), Item 4.5.
"Rated Capacity of Platform: 350 kg" Deleted and Replaced by **"Rated Capacity of Platform: 250 kg"**
(Refer Page VII-26 amended)

ACKNOWLEDGMENT

The Chairman,

Departmental Procurement Committee,

General Sir John Kotelawala Defence University,

Ratmalana,

Sri Lanka.

Supply, Installation, Testing & Commissioning and Maintenance During the Defect Liability Period of Vertical Transportation System (Lifts & Disabled Platform) for Auditorium of General Sir John Kotelawala Defence University, At Ratmalana (KDU/PRO/RP& SERVICE/(AUD)/2704/2021).

We have received Addendum No. 1 of the above work.

.....

Name and Address of the Bidder

.....

Signature and Seal / Date

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 car and landing doors are closed, except within the leveling 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% over-voltage.

The contactors and switches shall be mounted on panels of approved non-inflammable and non-hygroscopic 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.

2.7 Electrical Work

The power supply for the apparatus will be 400 Volts AC ± 10%, 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. The installation shall be protected against over voltages and power surges by surge arrestors. Contractor shall also supply and install any other switchboards or panels required for a complete installation.

(i) Power Supply to the lift machine room of to the top of the lift shaft is terminated on 3 phase circuit breakers at lift machine room of top of the shaft. The contractor shall draw the power supply for the lift installation from these breakers. 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.

3.2 Schedule of Requirements – Service Lifts (Machine Room Less)

Type of Elevator	- Service
No. of Lifts	- 01 Nos.
Capacity	- Minimum 1,600 kg
Speed	- 60 m/min (1.0 m/s)
Duty	- 180 starts/ hr.
Automatic Re-leveling Accuracy	-±5mm
Traction Drive	- Gearless Permanent Magnet Synchronous Motor
Drive Unit	- AC Variable Voltage Variable Frequency Control
Operation	- Selective collective with or without attendant service
Stops & Openings	- 04 (One opening same side)
Service Floor Names	- Ground Floor, Plan @ 4.05, Plan @ 8.05, Plan @ 12.05
Travel length	- 12,000 mm (Approximately)
Overhead Height (Available)	- 4,200 mm
Pit Depth (Available)	- 1,800 mm
Hostway Size (Available)	- 2,250 mm (W) x 2,850 mm (D) (Approximately)
Car and Landing Door	- 1,200 m (W) x 2,100 mm (H) / 2-Panel Center or Side Opening
Minimum Car Dimensions	- 1,400 mm (W) x 2,400 mm (D)
Machine Room	- Machine Room Less (MRL)

Item	Description		Unit	Qty	Rate LKR	Amount LKR
	No of stops / openings	4				
	Travel (Approximatcly)	12,000 mm				
	Overhead height	4,200 mm				
	Pit depth (available)	1,800 mm				
	Hoistway (Approximately)	2,250 x 2,850 mm (WxD)				
	Entrance car door	1,200 x 2,100 mm (WxH)				
	Minumum car dimensions	1400 x 2400 mm (WxD)				
	Door type	Two Panel Center or Side Opening				
	Door jamb	Wide				
	Machine room	**Machine Room Less**				
	Finishes of the car	Hairline Stainless Steel				
L/5	Supply Cost		Item	1		
L/6	Installation, Testing & Commissioning Cost		Item	1		
					Sub Total (Excluding VAT)	

	Under voltage		
	Phase failure		
	Over load		
	Earth fault		
3.12	Traction motor		
	Motor Type (Gear / Gearless Induction)		
	Make & Model		
	Rated capacity (kW)		
	Speed (rpm)		
	Ventilation / cooling	Forced Ventilation	
	Insulation class	Class F	
	Rated Current (A)		
	Rated Voltage (V)		
	Duty cycle rating		
3.13	Governor system	Centrifugal over speed	
	Make		
	Model		
3.14	Type of safety gear	Progressive	
	Make		
	Model		
3.15	Hoistway size (available) (W x D) / mm	2250 x 2800 (Wx D)	
3.16	Mchine room size (available) (W x D) / mm	MRL	
3.17	Over head height (available)	4200 mm	
3.18	Pit depth (available)	1800 mm	
3.19	Position of machine room (available)	MRL	
3.20	Lift car		
	Minimum Internal dimension (W x D)	1400 x 2400 (W x D)	
	Car door type	2-Panel center or side opening	
	Door opening dimension (W x H) / mm	1200 x 2100 (W x H)	
	Ceiling, lightings	Decorative MS ceiling and recessed LED lighting	
	Ventilation	02 nos line blowers	
	Interphone	Built-in inter phase	
	Wall and doors	Hairline finished stainless steel	

		Hold button to extend door opening time	
		Attendant operation switch	
3.21	Landing		
	Door type	2-Panel center/ side opening	
	Door construction	Stainless steel	
	Door dimension (W x H) / mm	1200 x 2100 (W x H)	
	Opening and closing features of door	Automatic sliding	
	Architrave	Stainless steel / Splayed wide jamb	
	Finish of push button panel	Stainless steel	
	Functions and features of land operating panel	Digital floor position indicator	
		Floor button of micro touch type with light for registration of commands	
	Landing sill type	Extruded hard Aluminum	
	Landing door lock type		
	Make		
	Model		
3.22	Levelling accuracy	+/- 5mm	
3.23	Buffer type	Oil	
	Make		
	Model		
3.24	Safety gear type	Progressive	
	Make		
	Model		
3.25	Counter weight details	Cast Iron or Steel	
3.26	Guides of car	Roller guides	
3.27	Type and Number of component ropes / chain		
	Diameter		
	Number of ropes		
	Breaking strength of hoisting ropes		
3.28	Special features		
	Opertion system	Fully automatic Group Control Operation	

MINISTRY OF DEFENCE

CONSTRUCTION OF PROPOSED AUDITORIUM OF GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY, AT RATHMALANA

VERTICAL TRANSPORTATION SYSTEM

(LIFTS AND DISABLED PLATFORM)

BILL OF QUANTITIES

Item	Description	Qty	Unit	Rate LKR	Amount LKR
VT/-	**VERTICAL TRANSPORTATION SYSTEM**				
	NOTE 1				
	Allow for all cost of supply including CIF, CID, PAL, clearing charges, transport charges, erection, factory testing, site testing, commissioning as per specification and drawings and profits etc.				
	Allow for cost of providing security bonds, guaranties, insurance of personnel, property, material against accidents, damage, trespass or theft.				
	Allow for the cost of all temporary works such as fixing of scaffolding (scaffolding will be supplied by the Civil Contractor) etc. associated civil and electrical works related to the installation work such as drilling of suitable holes in walls, breaking of any parts of walls and finishing works of the same such as plastering, painting, etc. electrical power / control wiring, services connections, etc.				
	NOTE 2				
	The work includes the supply of all materials and the provision of site testings, pre-site visits, plants, tools, machines, scaffoldings, labor, documents, drawings, stores, method statements, test reports, handing over documents, technical data sheets, manufacturer's specifications & recommendations, method statements, services in connection with the work as set out in these documents and required for handing over the Vertical Transportation System which shall be fully operational in every respect and intent.				
	The contractor shall have before tendering verified ratings, sizes and dimensions of all components included and required in order to achieve the specified requirements.				

4.6 Location of disabled platform

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

4.7 Schedule of Requirements for Disabled Platforms

No of Disabled Platforms	- 2 Nos.
Capacity	- 250 kg (minimum)
Speed	- 4.8 m/min
Lifting Height	- 1,050 m approximately
Stops and Opening	- 02 stops
Platform size	- 900 mm (W) x 1,500 mm (D) (minimum)
Pit Depth (Available)	- 1,000 mm

Materials

- Materials : Galvanized steel
  - Panel cover : Powder Coated / Aluminium
  - Platform floor : Powder Coated / Stainless Steel
- Railing / doors : Powder Coated / Galvanized Steel
- Safety door : Powder Coated / Galvanized Steel

Accessories

- External Control Panel
- Wireless External Control Panel
- Freestanding Control Panel
- Fully Automatic Safety Door – Upper Level
- Manual Lowering Devices
- Backup power supply to lower the Platform in case of power failure

Safety Features

- Grab rail
- Non-skid platform surface
- Obstruction safety panel under platform
- Alarm and emergency stop switch
- Landing interlocks keep doors closed/locked when the platform is at another landing

Item	Description		Unit	Qty	Rate LKR	Amount LKR
DP/-	**DISABLED PLATFORM : DP 01 & DP 02**					
	Supply and Installation of Disabled Platform complying with the followings and as per the specifications:					
	Subject	**Requirement**				
	Capacity	Min. 250 kg				
	Speed	4.8 m/min				
	Lifting Height	1,050 mm approximately				
	No of stops / openings	2				
	Pit depth (Available)	1,000 mm (approximately)				
	Platform Sized (Approximately)	900 x 1500 mm (WxD)				
	Finishes of the car	Powder Coated / Galvanized Steel				
DP/1	Supply Cost		Item	2		
DP/2	Installation, Testing & Commissioning Cost		Item	2		
					Sub Total (Excluding VAT)	

4.4	Country of manufacture		
4.5	Rated capacity of platform	250 kg (min)	
4.6	Rated speed	4.8 m/min	
4.7	Rated supply voltage	230 V / 1 Phase	
4.8	Frequency	50 Hz	
4.9	Permissible supply voltage variation	+/- 10 %	
4.10	Platform Size (W x D) / mm	900 x 1500 (Wx D)	
4.11	Lifting Height	1050 mm	
4.12	Pit depth (available)	1000 mm	
4.13	Accessories		
		External Control Panel	
		Wireless External Control Panel	
		Freestanding Control Panel	
		Fully Automatic Safety Door – Upper Level	
		Manual Lowering Devices	
		Battery Backup	
4.14	Safety Features		
		Grab rail	
		Non-skid platform surface	
		Obstruction safety panel under platform	
		Alarm and emergency stop switch	
		Landing interlocks keep doors closed/locked when the platform is at another landing	