

TICEL BIO PARK LTD

COMPETITIVE TECHNO COMMERCIAL TENDER

**DESIGN, ENGINEERING, SUPPLY, INSTALLATION, TESTING AND
COMMISSIONING OF LIFT & ALLIED WORKS IN CONSTRUCTION
OF TICEL BIO PARK- III**

**At SF No. 66, 67, 68 & 75, Off Maruthamalai Road, Somayampalayam Village,
Bharathiyar University P.O, Coimbatore - 641 046
(G +13 UPPER FLOORS)**

BILL OF QUANTITIES

VOLUME - IV

DUE DATE FOR SUBMISSION: ON OR BEFORE 03.04.2019 BY 15.00 Hours

TO BE SUBMITTED TO: M/s TICEL BIO PARK Ltd
CSIR Road,
Taramani, Chennai - 600 113.
Telephone No.: +91 44 22542061
Fax No: 91-44-2254 2055
E-mail: md@ticelbiopark.com

ENGINEERING CONSULTANTS:M/s TAAMAESSEK ENGINEERING CONSORTIUM
Architects & Engineers
No 5, 1st Floor,
Bishop Wallers Avenue West.
Off TTK Road, Mylapore,
Chennai- 600 004 – INDIA.
Tel No: 044-24671139 / 57
Fax No: 044-24672237
E-Mail: info@taamaesek.com

TENDER SUBMITTED BY:

M/s. _____

Address _____

2019

PRICE SUMMARY FOR LIFT & ALLIED WORKS FOR TICEL BIO PARK III - Coimbatore					
SUPPLY AND INSTALLATION OF PASSENGER LIFT AND SERVICE LIFT - General Abstract					
SL. NO.	DESCRIPTION OF WORKS	QUANTITY	SUPPLY	ERECTION	AMOUNT
	<u>Capital Works</u>				
1	Supply, installation, testing and commissioning of following lifts:				
a)	Passenger lift	2			
b)	Service lift	1			
	TOTAL FOR CAPITAL WORKS				
	<u>Comprehensive Maintenance works</u>				
2	Non Comprehensive Maintenance contract for 4 years after defect liability period for Tichel Bio Park III. (Total 5 Years including DLP. considered for Tender Evaluation Purpose)				
	TOTAL (1+2)				

INTERNATIONAL COMPETITIVE TECHNO COMMERCIAL TENDER

VOLUME 4

PREAMBLE TO BILL OF QUANTITIES

I. SUPPLY AND INSTALLATION OF 2 Nos. of PASSENGER LIFT AND 1 No. of SERVICE LIFT

		Tenderers are advised to note the following regarding supply and erection portion of each item in the BOQ
		Bidder shall quote there rates based on the Bill of quantities read together with technical specifications, particular specifications and special conditions in Technical specifications.
1	a	<u>NOTE:</u> Rate for supply shall be inclusive of product cost, levies, of all taxes excluding GST etc transport, factory testing ,Type Mockup Insurance including transit insurance, handling, packing, demurrage, storage etc of any or all inputs.
2	b	Rate for erection shall include all insurance until handing over (for labour and materials), handling at all locations, all labour, supervision, cutting, wastage, fabrication, erection, Plant and machinery for manufacturing and testing and commissioning at site, and maintenance during the Defects Liability Period (DLP)
3	c	Costs such as contractor's overheads and profits, Administrative charges, Electricity and water charges, for execution of work and testing and commissioning for handing over Enabling works and preliminaries, Inspection Charges, Training of Owner's personnel, arrangements for Obtaining all statutory approvals , carrying out of all duties and obligations under the contract , risks of variations in cost and expenses and charges of any or all inputs but not limited to those described herein for supply, erection charges etc., should be inclusive in quoted rates and the rates shall remain firm through out the period of contract or any extended time thereto. Bids are called for with Machine roomless for both passenger lifts and Service lift with Machine room. Bidder to study the drawing in terms of shaft sizes, machine room sizes, lift car etc any extra support/bracket to support the loft shaft for the required capacity of lift by the lift suppliers without any additional cost to the Owner.
		All Tenderers shall make a note of the following and quoted rates shall provide for all the features described below: -
		The desired sequence for rescue operations of emergency failures: -
		A) Electrical Failure: -
		The safety back up shall be in the following order: -
	1	First level rescue will be by the power supply from owned DG sets, supplied through AMF Panel. If DG supply does not flow in within the stipulated time, the Automatic Rescue Device (ARD) with own battery back up shall take over and come into play.
	2	In the case of ARD coming into play, each car shall be powered to the next adjacent landing where the car comes to a stop, opens the door and shuts down all operations.

		While ARD is in operation as above, if DG power flows in for the interim period, ARD ignores the Main or DG power input and does not allow the Main or DG power to take over until the ARD operations are completed.
	3	If ARD also fails, the rescue shall be manual and shall be carried out only by Designated Trained Personnel (DTP) within the organization. The sequence shall be:-
	i	First switch off the power supply to the lift panel at the top most landing.
	ii	Switch off all the power supplies within the Maintenance / Rescue Panel (MRP).
	iii	Operate the rescue lever (rescue button) and watch for the LED signal when the car travels to the adjacent level and at that designated point release the lever (button) so that the car comes to a stop.
	iv	Thereafter, the Designated Trained Personnel shall go to the floor where the car has halted and open the door manually through the special door opening key. If power comes back, the entire system is reset as per the manufacturer's specific procedures.
		Upto the above steps, the Designated Trained Personnel of the organization can handle the emergencies. If the manual rescue lever also fails, then the Lift Company's Emergency Rescue team shall only handle rescue operation who when called shall attend within the pre-designated response time and conduct rescue. In such cases, rescue operations shall only be left in the hands of the Lift company's Emergency Rescue team.
B) Mechanical Failure:-		
	4	Mechanical failures such as break jam or safety gear actuation shall be handled through the Lift Company's trained Emergency Rescue Team only and not by in-house Maintenance team. Emergency Rescue Teams of Lift company shall respond within the stipulated response time.
C) Power back up:-		
		Emergency power back up for Lights, Fans, Telecom and Alarm of Lifts shall be independently circuited and the battery back up shall last for half an hour.
D) Testing and commissioning:-		
		The Lifts after testing and commissioning shall be subjected to vibration analysis through an Elevator Vibration Analyser (EVA) which shall graph the entire movement pattern in order to measure whether the values are within the acceptable tolerance limits as per Company's specification. In case of the results exceeding the accepted tolerances, fine tuning and readjustments shall be carried out until the operations in terms of smoothening, vibration free and jerk free operations are brought under control. The balancing of lifts shall also be such that any jerking or vibration shall not be present at any point of lift operation.
E) Specification for Guide rails:-		
		The guide rails shall be machined and tongue and groove jointing shall be adopted to ensure straight alignment and to provide vibration or jerk free transit through the guide rail. The EVA meter reading shall cover this also.
F) Internal Ventilation in Lift shafts for equipment:-		
	i	No specific or supplementary air-conditioning or ventilation will be provided in the lift shafts except for exhaust / intake protected louvered openings of necessary size 300mm x 300mm at the top of the shaft for each lift.
	ii	This opening will act as in-take / exhaust depending upon direction of movement of the car. The lift manufacturer shall ensure that their lift machinery, all equipments and all other components shall be designed to work in the given ambient condition at site.
	iii	The duty levels of Electronic and Mechanical equipments shall be suitably designed, manufactured and maintained accordingly and no malfunction shall occur on account of this aspect.

BILL OF QUANTITIES							
CAPITAL WORKS							
Sl.No	Description	Qty	Unit	Unit Rate (INR)		Amount (INR)	
				Supply	Erection	Supply	Erection
1	Supply, Erection, Testing and commissioning of passenger lift with Stainless Steel finish Car enclosure to carry 21 passengers of 1428kgs of machine roomless, synchronizing motor - Gearless VVVF controller in the existing lift well / shaft having minimum speed of 2 m/sec with a total travel of 63 (Approx) mtrs. Ground plus 13 upper floors, servicing 14 stops and 14 landings on the same side with / without attendant operation. The car cabin wall shall be by the combination of MS base plate of 1.5mm thick over which skin plate of 0.6mm etched / scratch proof stainless steel is affixed and bonded to form a over all wall thickness of 2.1mm and with all necessary safety features and in accordance with Lift Service particulars, General / Technical Specification, special condition etc. The design pattern shall be of combination of etched / scratch proof stainless steel and shall be as per Architect / Owner requirement and approval.	2	Nos.				
	The lift shall be of excellent quality and shall have Micro stroke push buttons, floor announcement system, Gearless and other features as per detailed specification in Volume 3 of 4 . The door for car cabin shall be with two panel central opening. The lift car shall have two parallel car operating control panels in automatic mode (with or without attendant) and from one panel in attendant mode.						
	The lift equipment being machine room less, the machine will be fixed on the guide rail. All the lift equipments, i/c car, car doors self-levelling devices, control devices, indicators, landing doors, indicators, buffer ropes safety devices i/c all wiring connection, interconnection and all connected equipments shall be as per specifications.						
	The rate shall include approval / obtaining completion certificate from the electrical / lift inspectorate of Local Competent Electrical Authority for installation and commissioning of lifts before handing over the entire installation of the lift.						
	Note: Tenderer should be given options for car Interiors. The final Approval will be given by Client/ Engineering Consultant						
	Note: Control of Operation (Simplex /Duplex) should follow as per Technical Specification						
	Note: Tenderer should follow the Technical Specification - Volume 3 of 4						
2	Design, manufacture, supply erect at site, test, commission Service lift 2500kg load capacity Machine room, synchronizing motor -Gearless VVVF controller in the existing lift well / shaft having minimum speed of 1.00 m/sec with a total travel of 63 mtrs (Approx). Ground plus 13 upper floors servicing 14 stops and 15 landings (In ground Floor only two sides opening and in other floors only one side opening in lift corridor side) with simplex group with/without attendant operations and with all necessary safety features and in accordance with Lift service particulars, General/Technical specifications, Special conditions etc.	1	No.				
	The lift shall be of excellent quality and shall have Micro stroke push buttons, intelligent controls of Single lift (as required), floor announcement system, Gearless and other features as per detailed specifications in Volume-3 of 4 . The lift car shall have Operating control panels in automatic mode (with or without attendant) and from one panel in attendant mode.						
	The lift equipment being machine room the machine will be fixed on top of the car. All the lift equipments, i/c car, car doors self-levelling devices, control devices, indicators, landing doors, indicators, buffer ropes safety devices i/c all wiring connection, interconnection and all connected equipments shall be as per specifications.						
	The rate shall include approval / obtaining completion certificate from the electrical / lift inspectorate of Competent Electrical Authority for installation and commissioning of lifts before handing over the entire installation of the lift.						
	Note: Tenderer Shall give options for car Interiors. The final Approval given by Client/Owner Engineer/ Engineering Consultant						
	Note: Tenderer should follow the Technical Specification - Volume 3 of 4						
GRAND TOTAL						0	
Note : Rate should be exclusive of GST							

Comprehensive Maintenance Works		
BILL OF QUANTITIES		
2. Non -Comprehensive Maintenance contract for 4 years after defect liability period for TiceI Bio Park III ,Coimbatore Total 5 Years		
SL. No.	DESCRIPTION OF WORKS	LUMPSUM
2	Maintenance of the system supplied, installed, Commissioned by the successful tenderer for TiceI Bio Park-III Ltd, Coimbatore for 5 years including the Defects Liability Period (DLP). This will include start up / commissioning, routine servicing, regular maintenance, preventive maintenance of equipments and components and break down repairs as and when occurred, ensuring that system does not remain out of service for a period more than 8 hours in case of major breakdowns and one hour in the case of minor breakdowns due to any unforeseen break down.The successful tenderer shall keep the essential spares for Bio Park-III during the Defects Liability Period to avoid any delay in attending the faults/maintenace and also during the Non Comprehensive maintenace contract period.	
	a. First Year (After Defects Liability Period) quote lumpsum fee for one year	
	b. Second Year (After Defects Liability Period) quote lumpsum fee for one year	
	c. Third Year (After Defects Liability Period) quote lumpsum fee for one year	
	d. Fourth Year (After Defects Liability Period) quote lumpsum fee for one year	
	Total Amount in (a+b+c+d)	

Note :

- 1.The Escalation in the maintenance cost for consecutive years should not exceed 5% of the Lumpsum fee quoted for previous year by the tenderer.
- 2.The Contractor has to do non-comprehensive maintenance for 4 years for lifts at TiceI Bio Park III Ltd., Coimbatore after DLP.

Minimum Man Power requirement for LIFT NON Comprehensive Maintenance services.				
S.No	Designation	No.of Person	Qualificatio	Experience
1	Non Comprehensive Maintenance for (Ticel -III.) TICEL Bio Park-III Coimbatore. Technician	1	ITI	Minimum 5 Years Experience in Lift Operation & maintenance
Note:				
i	The above man power is minimum requirement for routine operation and maintenance of Lift and Allied works. In case of annual maintenance, major Break downs, Emergency situations, etc. contractor has to provide required manpower, tools, tackles, etc to full fill the contractual requirement. If Contractor feels that the above minimum manpower is not adequate for routine maintenance of Lift and Allied works, the contractor shall engage more manpower with in quoted price.			
ii	The maintenance is on round the clock service on Seven days per week.			
ii	In case the services are not upto the mark (or) inadequate manpower are provided and corrective actions are not taken within Ten days a penalty equal to One month of Maintenance charges of that month will be levied as decided by TICEL.			
iv	The payment will be made on quarterly basis on submission of bills along with all relevant details/including particulars of attendance / EPF/ESI remittance and other statutory provisions. The attendance particulars are subject to verification with TICEL III IBMS reports/records.			