



Ref.: RE24-11 (Electrical and Mechanical - Labor Only)
Date: June 26, 2024

Invitation to BID

1. Purpose:

The American University of Beirut Medical Center invites proposals to bid for the following:

Scope:

Electrical and Mechanical - Labor Only)

Quantity / Specs :

A- Site Inspection: Not Applicable

2. Proposal Requirement:

- Prices should be quoted in **US \$** delivered to AUB inclusive of all expenses (unless otherwise specified in your proposal).
- Prices should be quoted net of any discounts or allowances and exclusive of VAT
- All proposal documents must be signed by an authorized representative of the supplier, each page must be initialed and the final page must be signed and dated.

3. Submission Deadline Date and Venue :

Proposals must be submitted on or before **July 8, 2024**, Monday to Friday: 8:00 a.m. till 13:00 p.m. to the following address:

**American University of Beirut – Medical Center
Medical Bids**

Medical Administration Building, 7th floor, Room 704

No bids are accepted after the above mentioned date, in the event that AUB offices are officially closed on the date the proposals are due, the deadline for submission shall be automatically extended until the next business day

All Proposals shall be submitted in sealed envelopes carrying:

- a. Supplier's stamp
- b. Bid Reference
- c. Company name

N.B: Bids submitted by fax or erroneously sent directly to Procurement department will not be considered or even acknowledged

4. Apology:

In case the requested items are not available, or you do not want to participate in this bid, you are kindly requested to respond by submitting a written apology indicating the reason and the bid reference number or you can send an apology by e-mail.

5. Payment:

Please suggest your payment terms .



6. Insufficient Data:

It is the responsibility of the person submitting the proposal to ensure the completeness of the information submitted. Failure to do so may result in the elimination of the proposal from consideration.

7. Costs:

The university will not be liable for any costs incurred by Suppliers for developing the proposal, performing presentations or demonstrations, and any other expenses incurred by the Suppliers before the award and contract signature

8. Disclosure:

Supplier represents and certifies that the offer has not been knowingly disclosed directly or indirectly to any competitor or AUB staff or other supplier before the opening of proposals by AUB. Supplier represent and certifies that the financial terms have been established independently without consultation, communication, or agreement for the purpose of restricting competition or any matter relating to such prices with any competitor or other supplier. Supplier represents and certifies that no attempt has been made to induce any other company or person to submit or not to submit a proposal in response to this RFP for the purpose of restricting competition.

9. Proposal award policy:

The University reserves the right to reject any or all proposals and to award this tender in whole or in part to the supplier or suppliers that, in its opinion, offers the most advantageous combination of cost, quality, service and other factors which in its sole discretion are deemed important to the University. AUBMC may accept or reject any or all bids and shall not be required to provide justification for any such selection or rejection. AUBMC may also cancel this invitation to bid at any stage, whether before or after the selection of the successful bidder (but prior to signature of the contract) without having to provide any justification and without incurring any liability whatsoever as a result thereof.

10. Validity:

Proposals submitted shall be valid for at least **6 Months** from the date of submission. Proposals will be treated as final and binding offers and may not be amended or withdrawn

11. Results

Bidders can check the bid's status and results by visiting the below web link:

http://www.aubmc.org/patientcare/adm_ser/Pages/Purchasing-BidRfp.aspx

Mohamad Walid Halwani
Deputy Procurement Director
Cc. Medical bids // Internal Auditor



AMERICAN UNIVERSITY OF BEIRUT – MEDICAL CENTER
Requirements

Bid for labor works for Tamara Dentistry Project – Labor only.

The project involves installation of Electrical and mechanical parts supplied by AUB

Bidders must present:

- The pricing on the attached BOQs
- Offers are needed softcopies on excel format and printed signed hardcopies
- All the hardcopies must be stamped
- Works schedule

Supplier Ref:

Supplier Stamp:

Date:

**AMERICAN UNIVERSITY OF BEIRUT MEDICAL CENTER
FACILITIES MANAGEMENT DEPARTMENT**

BILL OF QUANTITIES

ELECTRICAL WORKS		
Power		
Receive and install hospital grade 5-15R duplex receptacles 110V complete with cover plate and all accessories	54	EA
Receive and install hospital grade 5-15R GFCI duplex receptacles 110V in wet areas complete with cover plate and all accessories	1	EA
Receive and install hospital grade 5-15R receptacles 110V complete with cover plate and all accessories for faucet sensor as per detail A shown on layouts	11	EA
Receive and install hospital grade 6-15R duplex receptacles 220V complete with cover plate and all accessories - connected to normal power	49	EA
Receive and install hospital grade 6-15R duplex receptacles 220V complete with cover plate and all accessories - connected to emergency power	1	EA
Receive and install safety switches 3x16A with 1" empty EMT conduit to below floor tiles for future connection of examination tables as shown on layouts	9	EA
Receive and install floor boxes type "F1" including quadruplex receptacles 220V and one duplex receptacles 110V with floor cover plate and all accessories	9	EA
Receive and install floor boxes type "F2" including quadruplex receptacles 220V, one duplex receptacles 110V, and 2*CAT6.A outlets with data cables floor cover plate and all accessories	2	EA
Receive and install safety switches 2x16A for indoor unit as shown on layouts	10	EA
Receive and install safety switches 4x60A for outdoor unit as shown on layouts	2	EA
Provide outlet for thermostat of indoor units	10	EA
Lighting		
Receive and install LED light fixtures square shape 16W (Type A) connected to normal power	8	EA
Receive and install LED light fixtures square shape 16W (Type A) connected to Emergency power	11	EA
Receive and install LED light fixtures (Type B) connected to normal power	56	EA
Receive and install LED light fixtures (Type B) connected to Emergency power	10	EA
Provide electrical outlet for light fixtures (Type C)	2	EA
Receive and install Exit sign double sided as per specification	3	EA
Receive and install 15A one gang, one way toggle switch for normal light complete with cover plate and all accessories	6	EA
Receive and install 15A one gang, one way toggle switch for emergency light complete with cover plate and all accessories	8	EA
Receive and install 15A one gang, two way toggle switch for normal light complete with cover plate and all accessories	2	EA
Receive and install power feeder NYY 4x35mm ² +16mm ² inside EMT conduit	30	LM

Low Current		
Receive and install HDG perforated cable tray 20x5cm (WxH) with 1.5mm thickness including all related accessories and support system	30	LM
Receive and install HDG perforated cable tray 30x5cm (WxH) with 1.5mm thickness including all related accessories and support system	4	LM
Receive and install CAT 6A data and telephone outlets with all related conduits, boxes, cover plate, wires, connectors and accessories - conduits to terminate on nearest cable tray as per drawings	21	EA
Receive and install empty conduit 1"+ wall box to nearest ELV cable tray as shown on drawings	7	EA
Receive and install conduits, boxes and cables for smoke detectors connected to the existing FACP nearest loop in corridor as shown on drawings	1	LS
Receive and install Smoke Detector - EDWARDS (Detector SIGA PS and base SIGA SB)	26	Ea
Commissioning of Fire Alarm new installation by MacCorp	0	LS
Receive and install Fire Alarm audio manual pull station	1	Ea
Receive and install Fire Alarm audio visual notification device	1	Ea
Shop Drawings		
Submit Shop Drawings, of all systems, each trade alone, and with composite drawing	1	EA
As Built Drawings		
Submit As built Drawings, of all systems, each trade alone, and with composite drawing	1	EA

**AMERICAN UNIVERSITY OF BEIRUT MEDICAL CENTER
FACILITIES MANAGEMENT DEPARTMENT**

**TAMARI DENTISTRY PROJET
Mechanical Works
BILL OF QUANTITIES**

DESCRIPTION	Q	UNIT	U.P. \$	Total \$
MECHANICAL WORKS				
HVAC Works				
Receive and install Fan Coil units Vertical Concealed Type complete with all valves, strainers on cooling coil space thermostat, washable filter, and all supports, accessories and controls complete as specified and as shown on drawings:				
Type FCU - 600CFM (Brand Trane or Equivalent Approved by AUBMC)	10	EA		
Receive and install Modulating Pressure Independent Control valve with all fittings, accessories and controls complete as specified and as shown on drawings:				
Ø 1/2" (Brand Honeywell or Equivalent Approved by AUBMC)	23	EA		
Receive and install Thermostats, as existing ones, For FCUs with all accessories and controls:				
Type: Low/Med/High/Off Switch	23	EA		
VRV System				
Receive and install VRR Indoor units Horizontal Concealed Type with refrigerant pipes and control cables with all supports, accessories and controls complete as specified on the schedule and as shown on drawings: (Brand HITACHI / LG or Equivalent Approved by AUBMC)				
VRV-IU-01	0	EA		
VRV-IU-02	0	EA		
VRV-IU-03	0	EA		
VRV-IU-04	0	EA		
VRV-IU-05	0	EA		
VRV-IU-06	1	EA		
VRV-IU-07	1	EA		
VRV-IU-08	1	EA		
VRV-IU-09	1	EA		
VRV-IU-10	1	EA		
VRV-IU-11	0	EA		
VRV-IU-12	0	EA		
VRV-IU-13	1	EA		
VRV-IU-14	0	EA		
VRV-IU-15	1	EA		
VRV-IU-16	0	EA		
VRV-IU-17	1	EA		
VRV-IU-18	0	EA		
VRV-IU-19	0	EA		
VRV-IU-20	1	EA		
VRV-IU-21	0	EA		
VRV-IU-22	0	EA		
VRV-IU-23	0	EA		
VRV-IU-24	0	EA		

VRV-IU-25	0	EA		
Receive and install VRR Outdoor unit: Two Modules Outdoor Units 20HP (10+10) with refrigerant pipes and control cables with all supports, pads and accessories and controls complete as specified on the schedule and as shown on drawings: (Brand HITACHI / LG or Equivalent Approved by AUBMC)				
VRV-OU-01	1	EA		
Receive and install Refrigerant copper pipes type ASTM B280. with 13mm foam insulation and control cable (4x2.5mm ²) with all fittings, supports and controls complete as specified and as shown on drawings:				
Ø 1/4":	36.5	M.		
Ø 3/8":	19.7	M.		
Ø 1/2":	17	M.		
Ø 5/8":	55.5	M.		
Ø 3/4":	23	M.		
Ø 7/8":	34	M.		
Ø 1":	6	M.		
Ø 1 1/8":	9	M.		
Ø 1 1/4":	25	M.		
Ø 1 3/8":	3	M.		
Ø 1 1/2":	27	M.		
Receive and install Thermostats for VRV Indoor Units with all accessories and controls:				
Type: Low/Med/High/Off Switch (Brand Honeywell or Equivalent Approved by AUBMC)	9	EA		
Ductwork:				
Low pressure galvanized steel ducting including all supports, beads, junctions, reducers and flexible joints as specified and as shown on drawings.	1015	Kg		
Thermobreak Insulation 20mm thick to ductwork cross linked closed cell polyolefin with protective wrapping, as specified on the drawings.	117	m ²		
Acoustic lining (Internal clean lining) 15mm thick, as specified on the drawings.	48	m ²		
Receive and install galvanized Receive Air Plenum with 15mm liner and 20mm Thermobreak insulation with all supports, as specified on the drawings:				
32"x32"x10"	2	EA		
20"x20"x12"	0	EA		
18"x18"x10"	1	EA		
12"x12"x10"	1	EA		
Receive and install galvanized Return Air Plenum with 15mm liner and 20mm Thermobreak insulation with all supports, as specified and shown on the drawings:				
56"x30"x12"	0	EA		
56"x24"x12"	1	EA		
40"x24"x10"	1	EA		
40"x20"x10"	2	EA		
27"x20"x10"	4	EA		
24"x20"x10"	0	EA		
Receive and install Insulated Flexible Air Duct 15 mm fiberglass insulation with all supports, as specified and shown on the drawings: (Brand: to be approved by AUBMC)				
Ø4"	2	M.		
Ø8"	14	M.		
Ø10"	4	M.		

Receive and install Flexible Air Duct with all supports, as specified and shown on the drawings: (Brand: to be approved by AUBMC)				
Ø5"	5	M.		
Receive and install Galvanized Round Volume Damper with all supports, as specified and shown on the drawings: (Brand: KBE or approved by AUBMC)				
Ø4"	2	EA		
Ø5"	5	EA		
Ø8"	8	EA		
Ø10"	0	EA		
Receive and install Galvanized Rectangular Volume Damper with all supports, as specified and shown on the drawings: (Brand: KBE or approved by AUBMC)				
4"x4"	27	EA		
5"x4"	9	EA		
6"x6"	2	EA		
12"x12"	2	EA		
18"x15"	1	EA		
Air outlets: (All aluminum air outlets to be painted, RAL 9010, Brand KBE or approved by AUBMC)				
Receive and install the Following Complete with opposed blade dampers and all Duct Connections and Framing as Specified and as Shown on Drawings.				
Supply Air Diffuser with volume Damper.				
SAD:24"x24"	9	No.		
SAD:18"x18"	0	No.		
SAD:15"x15"	5	No.		
SAD:12"x12"	3	No.		
SAD:9"x9"	8	No.		
SAD:6"x6"	2	No.		
Return Air Diffuser.				
RAD:24"x24"	9	EA		
RAD:18"x18"	0	EA		
RAD:15"x15"	5	EA		
RAD:9"x9"	8	EA		
Door Louvre (Color to be approved by AUBMC).				
DL:12"x6"	5	EA		
Condensate Drain Piping				
Receive and install Pipe: Condensate Drain HP PVC with Armaflex 13mm insulation, with all fittings, supports complete as specified and as shown on drawings:				
Ø 25:	20	M.		
Ø 32:	17	M.		
Ø 40:	7	M.		
Receive and install Ceiling Clean-out: CCO HP PVC with Armaflex 13mm insulation.				
Ø 25:	8	EA		
Ø 32:	5	EA		
Ø 40:	1	EA		
Receive and install P-trap: HP PVC with Armaflex 13mm insulation, with all fittings, supports complete as specified and as shown on drawings:		EA		
Ø 25:	3	EA		
Ø 32:	1	EA		
Ø 40:	3	EA		
Plumbing Works				

Sanitary Fixtures			
Receive and Install, with all needed accessories, fittings complete, for the below items:			
(Brand: as described on each item, and also to the approval of AUBMC).			
Lavatory - Playa 1-H 55x48 cm white (J5011WHT)	13	EA	
Trap Cover for Lavatory (J5031WHT)	13	EA	
Mixer for Lavatory, chrome plated 2.2 GPM - Chicago Faucets #786-E3ABCP	13	EA	
P-trap for Lavatory, 1 1/4" with cleanout - Jones Stephens Copr. Plumbest #P38-010 17 gauge	13	EA	
Grid Strainer for Lavatory, inlet 1 1/4" Length 8", polished chrome finish	13	EA	
Angle Valve 1/2" (Grohe)	26	EA	
Knee mixer (similar to operating room scrub sinks)	1	EA	
Toilet seat - American Standard Afwall Millenium #2633101-020	4	EA	
Toilet seat cover - Church, white "000" open front elongated bowl #1955CT	4	EA	
Flush valve for toilet seat - Sloan DV-135 Diverter Valve Assembly with deoseptic unit #3309052 and Flushometer sloan regal 110XL #3080153	4	EA	
Mirror, chrome frame satin finish 18"x24" - BoBrick #B-1651824	2	EA	
Janitor Sink	1	EA	
Trap Cover for Janitor Sink	1	EA	
Mixer for Janitor Sink	1	EA	
P-trap Janitor Sink, 1 1/2" with cleanout	1	EA	
Grid Strainer for Janitor Sink, inlet 1 1/2"	1	EA	
Angle Valve 1/2" (Grohe)	2	EA	
Water Supply Piping			
Receive and install Pipe: Cold Water, Copper type BS EN 1057 & BS EN 1254-1-6, under ceiling & in wall with 15mm Thermobreak insulation, with all fittings, supports complete as specified and as shown on drawings:			
Ø 1/2":	159	M.	
Ø 3/4":	32	M.	
Receive and install Pipe: Hot Water, Copper type BS EN 1057 & BS EN 1254-1-6, under ceiling & in wall with 20mm Thermobreak insulation, with all fittings, supports complete as specified and as shown on drawings:			
Ø 1/2":	149	M.	
Ø 3/4":	32	M.	
Receive and install Bronze Gate Valve with 20mm Thermobreak insulation, with all fittings, supports complete as specified and as shown on drawings:			
Ø 1/2":	6	EA	
Ø 3/4":	4	EA	
Connection to Existing cold & Hot Water Pipes in Risers complete as specified and as shown on drawings:			
Ø 1/2":	2	EA	
Ø 3/4":	4	EA	
Receive and install Pipe: Cold Water for Compressed Air System, Copper type BS EN 1057 & BS EN 1254-1-6, under tile & in wall with 15mm Thermobreak insulation, with all fittings, supports complete as specified and as shown on drawings:			
Ø 1/2":	85	M.	
Drainage & Vent Piping			

Receive and install Pipe: Waste & Vent, ASTM A53 Galvanized Steel, STD, SCH 40, under ceiling, under tile & in wall, with all fittings, supports complete as specified and as shown on drawings:				
Ø 50:	182	EA		
Receive and install Pipe: Sewage, ASTM A 74-20 Cast Iron, STD, SCH 40, under ceiling, with all fittings, supports complete as specified and as shown on drawings:				
Ø 75:	2	EA		
Ø 110:	6	EA		
Receive and install Ceiling Clean-out: CCO:				
Ø 50 (Galvanized):	8	EA		
Ø 110 (Cast Iron):	3	EA		
Connection to Existing pipes:				
Ø 50 (Galvanized under tile):	8	EA		
Ø 50 (Galvanized Riser):	1	EA		
Ø 50 (Galvanized under slab):	4	EA		
Ø 110 (Cast Iron under slab):	1	EA		
Coring in Slab:				
Ø 50:	6	EA		
Ø 75:	1	EA		
Ø 110:	2	EA		
Fire Fighting Works				
Fire Fighting Pipes				
Receive and install sch.40 seamless black steel pipes, with all needed supports and accessories, as per NFPA, and painted to the required RAL				
Threaded joints for diameters up to 2" and Welded or Grooved joints for diameters equal and larger than 2 1/2" (no mechanical tees are allowed, grooved accessories should be UL/FM listed, similar to Victaulic)				
DN100	0	m		
DN75	0	m		
DN65	0	m		
DN75	16	M.		
DN65	22	M.		
DN50	16	M.		
DN40	9	M.		
DN32	4	M.		
DN25	114	M.		
Receive and install Fire Fighting Ball Valve, PN16, should be UL/FM listed (approved by AUBMC)				
Ø 1":	1	EA		
Ø 2":	0	EA		
Ø 3":	1	EA		
Connection to Existing pipes:				
Ø 1":	1	EA		
Ø 2":	1	EA		
Ø 3":	1	EA		
Fire Fighting Items				
Receive & Install Globe sprinklers, UL/FM, 0.5" pendent concealed SP, glass bulb type, fast response, 1.2' orifice, 68oC, K=5.6, standard factory bronze finish, with 57oC standard white polyester finish cover plate (approved by AUBMC)	49	EA		

Sprinklers installation wrench for concealed sprinkler should be supplied to AUBMC	1	EA		
Six concealed spare sprinklers with covers in a spare box should be supplied to AUBMC	1	EA		
GENERAL ITEMS IN CONNECTION WITH MECHANICAL WORKS				
Builders works in connection with all the mechanical works including all sleeves, and wall opening.		ITEM		
Testing and Commissioning of the entire VRV/Compressed Air/ Vacuum/fire/Drain & Vent/Ventilation/FCUs and Water Supply systems installations (including all related existing system to have a fully functioning system all to the approval of AUBMC) to be executed by a specialist to be approved by AUBMC with all as built drawings, operation manuals and test results all to the approval of AUBMC.		ITEM		
Provide two years guarantee for all mechanical equipment & systems.		ITEM		
Provide one year maintenance for all VRV/Compressed Air/ Vacuum, and fire systems including all labor, tools and supply of spare parts during this period.		ITEM		
Receive and install all fire sealants and fire stops on all ducts and pipes , penetrating fire rated walls, ceilings and floor slabs as described and specified and as per NFPA code.		ITEM		
Provision of all electrical works. Electrical boards and controls related to for VRV, Compressed Air and Vacuum Systems installations including cables, wires, cable trays, controls and all accessories		ITEM		
Receive and install all necessary expansion joints on all ducting and piping systems with all anchors, supports and fixing points all to be approved by the Engineer and according to study proposed by specialist.		ITEM		
Receive and install all anchors, supports and fixing points all to the approval of AUBMC.		ITEM		
Receive and install Labelling for Pipes, Ducts and Tagging for Mechanical Equipment all to the approval of AUBMC.		ITEM		
Contractor shall connect to existing installation all networks including supply of all accessories and pipes and ducts and replacement of damaged items, as shown on the drawings, all to the approval of AUBMC.		ITEM		
Shop Drawings				
Submit Shop Drawings, of all systems, each trade alone, and with composite drawing	1	EA		
As Built Drawings				
Submit As built Drawings, of all systems, each trade alone, and with composite drawing	1	EA		
Grand Total				