



President
Pravinsingh Pardeshi, I.A.S. (Retd.)

**BNHS Invites
Expression of Interest (EOI)**

For

Paint, Electrical and HVAC Services to be carried out in the premise of the Bombay Natural History Society, Fort, Mumbai as per the scope of work given under.

Bombay Natural History Society (BNHS) is looking for a Services for Painting of the internal and external walls, HVAC work on 1st and 2nd Floor and Electrical work on the 2nd Floor for its ongoing project on Restoration of Hornbill House Museum at Fort, Mumbai.

Scope of Work:

a. HVAC : 1st and 2nd Floor of the premise

(VRV/VRF System ODU - 48 HP, VRV/VRF BASED HI WALL, VRV/VRF BASED DUCTABLE, SITC of Centralized Controller, Gas charging, Refnet Joints/Branch Distributors for Indoor & Outdoor units, Control & Transmission Wiring),

b. Electrical : 2nd Floor of the premise

(light point wiring -primary, fan point, distribution boards 8 way tpn, db, light fixtures, power point circuit wiring, etc. as per the excel sheet)

c. Painting : from ground floor to 2nd floor of the premise and will include work for both Interior (757.87 sq.m) & Exterior (4131.8 sq.m) work.

Note: The detailed specifications are attached.

Qualification:

The service provider should be from the city of Mumbai or Mumbai sub urban area and should have carried out the work in the city of Mumbai of similar nature. He/she/firm must have the experience of implementing three projects of similar nature (submit customer letters) either independently or combined work in the immediate past three years, of similar or higher value (>50 lakhs).

Interested parties/firm/individuals may submit the Letter of Expression of Interest along with the work carried out in similar Heritage building with their quotation in the format attached as per the Unit of Measurement indicated against each and the time frame required to carry out the task independently to the Director, BNHS, Hornbill House, Dr Salim Ali Chowk, Shaheed Bhagat Singh Road, Fort, Mumbai-01, by 6th December, 2024 by 1700 Hrs at the following email id. Email id: director@bnhs.org.

The Letter of Eoi should necessarily include the Summary cost sheet and the individual cost sheet breakup to be considered for evaluation and taking the process further with the party.

Evaluation parameter:

The parties shall be evaluated on independent items basis and overall item basis, subject to fulfilling the above criteria.

Email id: director@bnhs.org

www.bnhs.org

Bombay Natural History Society
Hornbill House, Dr. Salim Ali Chowk, Shaheed Bhagat Singh Road, Mumbai - 400 001, India
Tel : (91-22) 2282 1811
Email : Office : info@bnhs.org Director : director@bnhs.org Website : www.bnhs.org



Date :.2024

Project Name : BNHS , Mumbai

SUMMARY

Sr No	Description	Amount in Rs.	Remark	Time required for completing the work in mandays - 01 day is 8 hrs.
1	HVAC Work		For First Floor And Second Floor.	
2	Electrical Work		For Second Floor.	
3	Painting Work		1.Internal Painting for Ground floor to Second Floor. 2. External Painting for all three side of building including parapet wall , staircase head room , chajja ect .	
Total Amount (Excluding GST)		-		

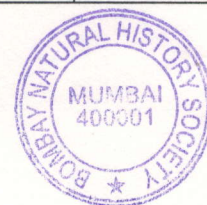


HVAC VRF WORK

S. No.	Description of Items	UNIT	QTY	RATE	AMOUN
1	VRV/VRF System				
1	Outdoor Units				
	Supply Installation, Testing & Commissioning of modular type Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling and heating, having all hermetically sealed inverter type Scroll Compressor(s), minimum two compressors for above 14 HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R 410 A Refrigerant, vibration isolators, with suitable foundation etc. complete as required. The unit shall deliver the rated capacity at AHRI Conditions and work even at 50°C ambient temperature without tripping. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply. The unit shall be filled with first charge of the refrigerant and ready for use as required. The COP at AHRI conditions shall not be less than 3.1 and IEER not less than 6.5 .				
1.1	ODU - 48 HP (18+18+12 HP)	Nos.	1.00		-
2	VRV/VRF BASED HI WALL				
	Supply, installation, testing and commissioning of following minimum capacity VRV/VRF High wall type Indoor unit equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cord less remote control, drain pan, necessary accessories etc., suitable for operation on 230 V ± 10%, 50 Hz, single phase AC supply, complete as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature.				
2.1	1.28 TR (424 CFM)				
2.2	1.59 TR (530 CFM)	Nos.	10.00		-
2.3	2 TR (671 CFM)	Nos.	4.00		-
3.1		Nos.	-		-
3	VRV/VRF BASED DUCTABLE				
	Supply, installation, testing and commissioning of VRV /VRF based ductable type, high static indoor unit (IDU) having EER as per BEE standards and specifications with evaporator fan with motor, copper tube aluminium fin evaporator coil, washable air filter, insulated drain tray, expansion device, cordless remote control with necessary controls and electrical terminal to receive power supply, etc. having anti-corrosive coating suitable for coastal area, with suitable ceiling suspension arrangement, with an electronic control console and any additional refrigerant and oil charge as per requirement during installation connected with the system complete. including canvas connection.				
3.1	6.36 TR (2295 CFM) HSP	Nos.	1.00		-
3.2	8 TR (2825 CFM) HSP	Nos.	1.00		-
4	Supply, installation, testing and commissioning of VRF/VRV based ceiling suspended 2 Way cassette indoor unit (IDU) having EER as per BEE standards and specifications, suitable as per site requirement with swing louvers and adjustable blades from sides. Indoor Units complete with in- built drainage arrangements, fan, refrigerant liquid and refrigerant piping, cordless remote control, and fresh air port etc. IDU shall have anticorrosive coating suitable for coastal area complete in all respects, to operate on 1-phase, 230V, 50Hz, AC input supply, consisting with any additional refrigerant and oil charge as per requirement during installation and connected to the system complete.				
4.1	2.6 TR CASSETTE UNIT	Nos.	-		-
4.2	2 TR CASSETTE UNIT	Nos.	2.00		-
5	SITC of Centralized Controller				
		Nos.	1.00		-
6	Commission of VRV systems including topping R410A gas per site requirements				
6.1	Gas charging	kg	90.00		-



7	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :			
7.1	41.3 mm O.D. (insulation : 19 mm) Tube thickness 1.62mm	Rm	18.00	-
7.2	34.9 mm O.D. (insulation : 19 mm) Tube thickness 1.62mm	Rm	15.00	-
7.3	28.6 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	8.00	-
7.4	25.4 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	-	-
7.5	22.2 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	16.00	-
0-poipp.	19.1 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	22.00	-
7.7	15.9 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	35.00	-
7.8	12.7 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	4.00	-
7.9	9.5 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	55.00	-
7.10	6.4 mm O.D. (insulation : 19 mm) Tube thickness 1.2mm	Rm	26.00	-
8	Refnet Joints/Branch Distributors for Indoor & Outdoor units.			
8.1	1 No Each for suction line , 1 no each for liquid line (= 1 set)	Nos.	19.00	-
9	Providing and fixing rigid PVC piping complete with fittings, supports as per specifications and duly insulated with 6 mm thick closed cell nitrile rubber insulation.			
9.1	25 mm dia	Rm	22.00	-
9.2	32 mm dia	Rm	65.00	-
9.3	50 mm dia	Rm	8.00	-
10	Control & Transmission Wiring			
10.1	Providing & fixing control cum transmission wiring of 2 corex1 sqmm copper in suitable conduits between indoor and outdoor units.	Rm	220.00	-
11	Outdoor Stand With Vibration Isolater V.I. Pad for VRV Outdoor Units.	Nos.	3.00	-
12	DUCTING, GRILLS, DIFFUSER AND INSULATION			
12	Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes,hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.			
12.1	Thickness 0.63 mm (24G) sheet	sq.m	56.00	-
12.2	Thickness 0.80 mm (22G) sheet	sq.m	40.00	-
12.3	Thickness 1.00 mm (20G) sheet	sq.m	-	-
12.4	Thickness 1.25 mm (18G) sheet	sq.m	-	-
13	Supply, installation, testing and commissioning of GI volume control duct damper complete with neoprene rubber gaskets, nuts, bolts, screws linkages, flanges etc., as per specifications.	sq.m	-	-
14	Supplying & fixing of powder coated extruded aluminium Supply Air Jet Nozzles 200mm dia 450 to 500 CFM Flow with aluminium volume control dampers as per specifications.	Nos.	16.00	-
15	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers as per specifications.	sq.m	8.00	-
15	Supplying & fixing of powder coated extruded aluminium Return Air Grills with louvers but without volume control damperscomplete as required.	sq.m	7.00	-
16	Supplying, Fixing,testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring,the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications.			
16.1	Fire damper	sq.m	2.00	-
16.2	Actuator	Each	5.00	-



17	Supply and fixing of acoustic lining of supply air duct and plenum with 25 mm thick resin bonded glass wool having density of 32 kg/m ³ , with 25 mm X 25 mm GI section of 1.25 mm thick, at 600 mm centre to centre covered with Reinforced Plastic tissue paper and 0.5 mm thick perforated aluminum sheet fixed to inside surface of ducts with cadmium plated nuts, bolts, stick pins, CPRX compound etc. complete as required and as per specifications.	sq.m	-	-
18	Supplying and fixing of following thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on existing duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required.			
18.1	19mm	sq.m	65.00	-
18.2	25 mm	sq.m	-	-
TOTAL HVAC COST IN RUPEES				



**PROJECT NAME : BNHS
ELECTRICAL WORK - For Second Floor Only**

S.No.	DESCRIPTION	UNIT	QTY	Rate	TOTAL AMOUNT
1.0	LIGHT POINT WIRING -PRIMARY				
	WIRE POLYCAB SWITCH GM PVC PIPE PRECISION				
	Wiring for the following light point with 1.5 sq.mmpvc insulated copper conductor				
	FRLS wire of 1100volts grade in concealed/exposed heavy duty FRLS PVC conduit				
	25mm dia in false ceiling/walls/ceiling as called for including providing 5amp flush				
	type switch of approved quality colour make and design and approved white				
	polycarbonate modular cover plate, 5 sided GI box with earth stud and earthing with 1.5 sq.mm FRLS PVC insulated copper conductor earth wire.(circuit wiring costing from DB to switch and switch to next switch shall be added in the same item)	NOS	78.0		0.0
2.0	FAN POINT				
	Wiring for the following Fan points with 1.5 sq. mm PVC insulated				
	copper conductor FRLS wires of 650/1100 Volts grade in				
	concealed/exposed RIGID PVC Medium Duty Conduits ISI Marked				
	including providing Hook and Ceiling rose for Fan, 6 amp Modular				
type switches, 5 Step Fan Speed Controller, approved White					
Polycarbonate modular cover plate for switch boxes and earthing					
with 1.5 sq. mm PVC insulated copper conductor earth wire.	NO	34.0		0.0	
3.0	Providing & Fixing 6 amp switch and socket On Existing Swith board approved White Polycarbonate				
	modular cover complete as reqd.	NO	25.0		0
4.0	Wiring for 15/16Amp power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core				
	socket, MS box for housing switches sockets, approved White Polycarbonate modular cover and earthing with 2.5 sq. mm PVC insulated copper conductor wire.	NO	10.0		0
5.0	DISTRIBUTION BOARDS				
	8 WAY TPN DB				
	INCOMER: - 63Amp FP MCB 10KA				
	BUS BAR:- 50Amp 3-Wire, 50Hz Cu/Al conductor with				
	PVC sleeves indicated with 3 colors				
	PHASE ISOLATION - 3Nos. - 25A DP ELCB 300mA				
outgoing-					
25Amp SP MCB 10KA - 24Nos.	NO	1		0	
6.0	LIGHT FIXTURES				
	18 W LED TUBELIGHT PHILIPS MAKE	NO	78		0
7.0	POWER POINT CIRCUIT WIRING				
	WIRING FOR THE FOLLOWING POWER POINT CIRCUIT WITH 2.5 SQ MM PVC COPPER				
	CONDUCTOR FRLS WIRE OF 1100 VOLTS WIRING FOR PVC CONDUIT PRECISION for				
WIRE POLYCAB	RM	300		0	
8.0	ARMOURED CABLE				
	SUPPLY OF 3 CORE ARMOURED PVC/XLPE INSULATED, PVC SHEATHED COPPER				
	CONDUCTOR CABLE OF 1.1 KB GRADE WITH ISI MARK				
3 CORE 4 SQ MM	RM	200		0	
	TOTAL				0.0



PROJECT NAME : BNHS
Quotation For : External and Internal Painting

Date : 06.12.2024

S.No.	DESCRIPTION	UNIT	QTY	Rate	Amount
1	Providing and applying washable oil-bound distemper of approved colour and shade to old and new surfaces in two coats including scaffolding, preparing the surfaces. (including the primer coat.) etc. complete.	Sq.m	4131.475		
2	Providing & applying exterior paint to the entire external surface of building, parapet wall & terrace lift m/c and staircase room, such as 100% Premium elastomeric Acrylic Paint like Asian, ICI, Godavari, etc., or Equivalent in Two + Two coat system or equivalent make with 10 years warranty by contractor and manufacturers, erecting scaffolding & scrapping, cleaning the surface, washing and filling the crevices with approved sealant approved etc. complete.	Sq.m	757.8696		
Total Amount					

